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THE DEPARTMENT OF SUPERINTENDENCE

Three problems more than any others stood out as conspicuous in the discussions at the meetings of the Department of Superintendence and affiliated societies held in Cleveland at the end of February. These were, first, training for citizenship; second, the reorganization of the curriculum; and, third, economy in educational organization with special reference to financial economy. Taken together, these interests may be described as broader and more fundamental than those which have been in the foreground at some meetings in the past. There have been meetings when the controversies about methods of measuring school results have engrossed attention, or some detail of organization such as the problem of whether or not there shall be a junior high school. This meeting seemed to assume that such issues are in process of adequate solution and that constructive, forward-looking general policies ought to be the chief matters of consideration.

In regard to school finance and its related topics, it is clear that school administrators have become aware of the fact that the people of this country are going to demand efficient management of public funds. The problem is not merely one of getting money for schools; it is much more that of properly spending the money

secured. The duty of the school administrator is, therefore, to study the functions of the various officers of the school system with a view to producing a more effective organization. His duty is to study the best adaptation of school work to individual pupils and to the needs of the community. His duty is to make clear to the members of the community what the schools are aiming to do and what they are accomplishing. If he performs these duties efficiently, experience has shown that in the long run American communities will support the schools generously and, if their wealth permits, adequately.

The interest in financial problems of the type discussed at the Cleveland meeting is heightened by the fact that in many parts of the country proposals are being made that there be a general retrenchment in school expenditures. The only adequate reply to such proposals is an intelligent policy of educational improvement.

Discussions of the curriculum with special regard to the problem of training for citizenship were even more vigorous than was the discussion of matters of school economy. It was recognized in many quarters that the materials of instruction must be modernized. New courses must be prepared which will make pupils aware of the complexities of modern life. This cannot be accomplished unless there is a general reconstruction of existing subjects and a redistribution of the time allotments in the school program.

So urgent is it that the new program of instruction be planned by the best agencies which the schools can call into their services that the Department of Superintendence committed itself to the creation of a commission to study the whole matter of curriculum reconstruction.

The Department of Superintendence also decided to prepare for its next yearbook a careful study of the duties of various members of the teaching and supervisory staffs of school systems. The first yearbook, which was distributed with the programs, is a study of the school superintendents of the country, setting forth the personal and professional qualifications of these officers and defining to some extent their duties and problems.

The president of the Department of Superintendence for the coming year is Commissioner Payson Smith of Massachusetts. He

was elected by a large majority, and very general satisfaction was expressed at the selection.

THE PRESIDENT'S PLAN FOR A DEPARTMENT INCLUDING
EDUCATION

Ever since the present federal administration entered office it has been known that there is no possibility of securing the approval of the President for a separate department of education. The President has been from the first in favor of a department of welfare and has held the opinion that this could properly include education. He finally acceded to the request of the educators that the special interests which they represent should be recognized in the title of the department. At first, this seemed to satisfy the so-called Legislative Commission of the National Education Association. After consultation with the various organizations with which the National Education Association has associated itself, however, it appeared impossible to accept the President's plan, and the campaign for the Towner-Sterling Bill has been continued.

The effect of the continuation of the educational campaign has been to jeopardize the whole plan. The friction which naturally follows any attempt to readjust federal departments has been greatly increased by the political efforts put forth by the agents of the National Education Association.

The President has finally communicated his plan to Congress with a view to having it discussed in the long interval between March and December. The following description of the general features of the plan and the details regarding education is extracted from an article in the *New York Times*.

The administration's recommendations for a regrouping of executive departments and bureaus were placed today before members of the Joint Congressional Committee on Reorganization of the Administrative Branch of the Government for study with the view of drafting legislation for the next session of Congress.

They are the result of more than a year of research and negotiation by Walter F. Brown, chairman of the committee, and President Harding's personal representative on that body, in conjunction with the President, members of the cabinet, and scores of bureau chiefs. A mass of detail is simplified by a chart of the proposed changes drafted by Mr. Brown with the approval of the President and the Cabinet.

Although the outstanding change proposed is a consolidation of two executive departments under one Cabinet head and the creation of another department, virtually every department is affected by the recommended regrouping of the bureaus that have increased with the expansion of the government.

Under Mr. Brown's plan, the functions of the ten executive departments would be changed to the extent of combining the War and Navy departments and transferring to other departments non-military activities carried on by the army and navy, eliminating from the Treasury Department all bureaus of a non-fiscal nature and expanding the interior department to include in its jurisdiction all public works and improvements.

The proposed new Cabinet member, a change that was covered by one of President Harding's campaign pledges, is the secretary of education and public welfare. Under him would be four assistant secretaries heading subdivisions embracing bureaus transferred from other departments. These subdivisions would be education, social service, health, and veterans' relief.

A regrouping of bureaus and of their present overlapping functions was another of Mr. Harding's campaign pledges. He apparently anticipated that the proposed changes would encounter marked opposition from entrenched officials, for after his election one of the agreements he secured from his prospective Cabinet members was that they would support this reorganization plan in its final stage.

Mr. Brown's report and charts were accompanied by a letter from President Harding to the Joint Congressional Committee in which he said:

"The changes, with few exceptions, notably that of co-ordinating all agencies of national defense, have the sanction of the Cabinet.

"In a few instances, which I believe are of minor importance, the principle of major purpose has not been followed to the letter, in order to avoid controversy which might jeopardize reorganization as a whole.

"Permit me to repeat what I have said to the members of the Joint Committee on Reorganization, that I regret deeply the delay in placing our suggestions in your hands. It has been caused solely by the difficulty which has been encountered in reconciling the views of the various persons charged with the responsibility of administering the executive branch of the government."

The bureaus and offices under the proposed new cabinet officer, the secretary of education and public welfare, would be drawn from other departments as follows:

From the Department of the Interior, the Bureau of Education, Indian schools, Howard University, St. Elizabeth's Hospital, the Freedmen's Hospital, Bureau of Pensions; from the Department of Labor, Women's Bureau (part) and Children's Bureau (part); from the Treasury Department, the Public Health Service; from the War Department, Soldiers' Home; from the Department of Justice, office of the Superintendent of Prisons.

Independent establishments that would be consolidated with the new department are the Federal Board for Vocational Education, the National Home

for Disabled Soldiers, the Columbia Institution for the Deaf, and the United States Veterans' Bureau.

It is also proposed to include the Smithsonian Institution, but Mr. Brown admits some doubt as to whether this can be accomplished under the law on account of the charter of the institution. In his opinion, however, its functions are in harmony with the proposed activities of the department of education and public welfare, and he recommends the propriety of its inclusion if the legality is unquestioned.

As few as possible independent bureaus and commissions would remain outside of departments under the Brown plan. These would be only bodies of a quasi-judicial character or which perform functions for all branches of the government. The organizations remaining independent of departments and directly under the President would be the Civil Service Commission, Shipping Board and Emergency Fleet Corporation, Tariff Commission, Interstate Commerce Commission, Federal Trade Commission, Federal Reserve Board, War Finance Corporation, Coal Commission, Railroad Administration, Railroad Labor Board, World War Foreign Debt Commission, Bureau of the Budget, Government Printing Office, Bureau of Efficiency, and the Bureau of Purchase and Supply, including the Government Fuel Yards.

INCREASED APPROPRIATIONS FOR THE FEDERAL BUREAU OF EDUCATION

This has been a year of stringent economies in federal departments. At the fourth regular semi-annual meeting of the Business Organization of Government, held January 29, 1923, President Harding expressed his gratification at noting that the departmental estimates for 1923-24 are \$196,000,000 less than the appropriations for the current year, 1922-23. General H. M. Lord, director of the Bureau of the Budget, reported that on July 1, 1922, the estimated expenditures for the fiscal year beginning on that date were \$3,896,258,542; estimated receipts, \$3,073,825,311; deficiency, \$822,433,231. By rigid revisions of programs this estimated deficiency was reduced by January 15, 1923, to \$92,649,173; and it was declared to be the purpose of the President and the Bureau of the Budget to wipe out this deficit entirely, by still further curtailments and eliminations, by the close of the fiscal year, June 30, 1923.

In spite of this general administrative policy there have been several increases—small, but gratifying—in the appropriations allowed to the Bureau of Education. These may be enumerated as follows:

1. For the Commissioner of Education and certain assistants, \$95,060, as compared with an appropriation last year of \$82,860; amount of increase, \$12,200. This increase will be used to add to the force of clerical and stenographic assistants, which has always been inadequate. Under the new conditions it will be possible to make more effective and economical use of the time of educational specialists.

2. For traveling expenses, \$10,000, as compared with an appropriation last year of \$7,500; amount of increase, \$2,500. The Bureau of Education is seriously hampered in its operations by the small amount of money provided for travel. Too often its services have been available to those states and communities which were able to pay for them rather than to those which needed them most. The Bureau of Education has never, in recent years at least, been able to respond to more than a fraction of the appeals for help which come to it.

3. For collecting statistics, \$16,200, as compared with an appropriation last year of \$3,600; amount of increase, \$12,600. This will make possible the addition of four field agents, who will be sent out to gather certain types of data which are always difficult to secure by the questionnaire method. This will not solve the problem of securing adequate statistics, but it will help.

School men can contribute greatly to the development of the Bureau of Education and of any federal agency for education which is to be set up in the future by making some effort to encourage members of Congress in the kind of move which is recorded in the foregoing paragraphs.

SMALL HIGH SCHOOLS IN INDIANA

The survey report on the schools of Indiana, recently published by the General Education Board, makes certain comments with reference to the small high schools of that state which raise a serious question as to the desirability of conducting small rural schools. Perhaps the difficulties here pointed out could be met by some form of consolidation. Perhaps state aid will be necessary. At all events, the situation as set forth in the following quotations deserves careful consideration.

The extended and complex high-school courses required by law and recommended by the state board of education have rendered difficult an effective and economical organization of instruction. To meet these requirements and recommendations the organization of curricula, of recitation schedules, of teachers' programs, and of pupils' programs is, even in large high schools, somewhat complicated. In small high schools the limited number of pupils, the limited teaching staff, the lack of special rooms and of special equipment multiply the difficulties.

As a result of these difficulties many small high schools suffer from defective organization. Most of these defects arise from the overambitious attempt to offer a program of studies beyond the resources and needs of the community. Schools able to provide a satisfactory two-year program aspire to a three-year program; schools able to provide a three-year program attempt a four-year course; non-commissioned high schools strain to become commissioned high schools; and the competition progresses almost indefinitely under the stimulus of popular and professional ambition. The net results are inferior education for the children, overburdened teachers, and an unjustifiable drain on the financial resources of the community.

To conclude, while Indiana has about 800 high schools, the state does not possess a satisfactory high-school system; it has only the skeleton of such a system. The period just past has witnessed the establishment and multiplication of high schools. Low standards have prevailed; the quality of instruction, particularly in small high schools, has been poor, and the cost excessive. The result is that thousands of young people are graduated annually from Indiana high schools who are not well equipped to take up the duties of life, or well qualified to enter the higher institutions of the state. A new high-school period is at hand—the period of effective organization and administration. Standards governing the establishment and control of high schools need to be raised, the high-school term must be lengthened, curricula must be simplified, better prepared teachers should be required, small high schools should be eliminated or consolidated, adequate supervision provided, and high-school cost kept to the minimum. Unless the high-school system of Indiana is thus improved, secondary education will continue to be unsatisfactory, particularly in rural districts, and the state's higher institutions will continue to be hampered by poorly prepared students.

BROADCASTING EDUCATIONAL MATERIAL

Two items which were published in the newspapers during the past month show the importance of radio for the wider spread of educational information and educational materials. These items are as follows:

To reach the general public as well as school workers with educational information and to spread it promptly, cheaply, and widely, the United States Bureau of Education recently began the sending out of messages twice a week from NAA, the naval aircraft station at Radio, near Arlington, Virginia, on a wave length of 710 meters. The messages are sent on Monday and Thursday from 6:45 to 7:00 P.M.

The first of the radio talks had for its subject the economic loss due to illiteracy. Later messages discussed the money value of education, visual aids to education, the necessity of education in a democracy, the work of the Bureau of Education in Alaska, and the shortage of school buildings. The Bureau of Education has started this service, says a statement in the bureau's bulletin, because it is its duty to reach not only technical experts, but also the general public, and it is the opinion of Dr. John J. Tigert, United States Commissioner of Education, that the public can be reached more quickly and directly by radio than in any other way.

Radio has the advantage of intimate contact between speaker and audience, the statement remarks, and since the bureau's messages will be sent on a regular schedule they will have the continuity necessary for informing the public on educational matters. Since public education cannot progress any faster than the state of public opinion about education, the commissioner believes that the inauguration of radio is an important step in advance. Newspapers in California and Washington have requested permission to broadcast the bureau's messages to the Pacific Coast states, inasmuch as the Anacostia radio reaches only to the Mississippi River.

Such subjects as the combating of illiteracy, the consolidation of rural schools, health work in the schools, Americanization and others of similar nature and all designed to call to public attention the present situation of popular education and the many problems involved in bringing it to higher levels will be taken up in future messages.

Foreseeing millions of listeners, the bulk of them of college age, the National Radio Chamber of Commerce is developing a plan to establish radio extension courses in American colleges and universities. In radio, education has found a new and powerful ally, said an announcement issued yesterday from the chamber's headquarters, 165 Broadway, New York City.

England and Germany are said to be planning to broadcast university extension courses. "Several prominent institutions of learning in the United States have made a beginning in this direction," it was stated, "and their reports of the encouraging success attending their efforts show us that the possibilities of the new method are not underestimated."

"Sixty other educational institutions are broadcasting educational and musical programs, forty-seven of them being colleges and universities. The combined area nominally covered by these institutions has been estimated to be seven or eight times the total area of the United States."

The National Radio Chamber of Commerce, which has set out to end confusion in the radio industry by bringing into harmony all its instrumentalities is devising a scheme of practical assistance to educational institutions.

"The importance of radio broadcasting as a means of reaching a large number of listeners in the United States, otherwise inaccessible, is being forced home to us every day," its announcement said. "There are in the United States between a million and a million and a half radio receivers, representing between three and four million radio listeners located within comfortable range of the speaker's voice of one of six hundred broadcasting stations, that is, stations equipped to send out telephonic communications. These listeners are, for the most part, of school and college age. Their number is rapidly increasing and will undoubtedly within a few years, total many millions.

"The National Radio Chamber of Commerce appreciates the tremendous potentialities of this new channel of communication in the field of education and desires in some practical way to support colleges and universities in extending their influence through radio extension courses to these listeners, a large proportion of whom would not otherwise be reached."

COLLEGE-ENTRANCE REQUIREMENTS IN HISTORY

A committee of the College Entrance Examination Board, appointed to consider the revision of the requirements in history, has prepared a report which aims to simplify somewhat the history examinations by reducing the number of papers from eight to four. In explaining its program of reduction the committee makes the following remarkable pronouncement:

The commission was unanimous in its opinion that the separate examination paper in civil government, giving one-half a point of credit for college entrance, should be omitted. It was not alone the fact that a very few students present this subject for entrance that led the Commission to its decision, but also the conviction that it was not wise to encourage the study of civics in the high schools apart from the history instruction. Setting a separate paper in civics, the Commission felt, would tend to the slighting of American history, and perhaps to the encouragement of an undue emphasis on the formal side of government. "Civics" has come to mean two very different things of late: on the one hand, it is considered as the study of the structure and operation of the government, local, state, or national; and on the other hand it is made an exercise in the duties and responsibilities of citizenship. It is the former of these definitions which the examination papers in civics recognize, whereas our textbooks (generally for grades far lower than the fourth year of high school) are increasingly emphasizing the "community" aspects of civics. The time may come when qualified instructors and adequate textbooks shall furnish high-school students with a course in civics worthy to be made the subject of

examination entrance into college. But until there is more progress made toward that end than at present it seems unwise to set a separate paper in civics.

When one reads this statement, one wonders whether one is dealing with a sectional peculiarity of high-school instruction or with a piece of medievalism. The members of the committee are, of course, all from the east side of the Hudson River, and one may be allowed to hope that this is the explanation of the report.

Even if the statements made about civics were true, one would think that the members of the committee would feel some obligation to devise a method of stimulating reform. As it is, this experiment in training for citizenship is ruthlessly cut off in its immaturity, or, to change the method of expressing one's pity, one notes that again the priest and levite go by on the other side of the road.

Perhaps there are some high schools in the country which will have the courage to be patient with this badly taught subject. Possibly the board will think more broadly than did the committee. It will be interesting to see how far historians who do not seem to understand the history of education will be influential in determining the practice of modern schools.

INTELLIGENT APPRECIATION OF MOVING PICTURES

The *Better Schools Bulletin* published by the Ohio State Department of Education gives the following suggestions as to a program which high schools should adopt in order to train their students to become more intelligent in the enjoyment of moving pictures. There can be no doubt that the general adoption of such a program would be most wholesome for the school itself and for society at large.

It is admitted by nearly everybody that moving pictures have as great an influence in the lives of the boys and girls of today as the books and magazines they read. Notwithstanding this fact, but little time, if any, is devoted in teaching English to that silent drama—the moving picture.

The child learns to like and to read good literature instead of objectionable literary trash largely because of the power of the appreciation of good literature that is developed within him as a result of proper teaching of English. Would it not be possible to develop in the child an appreciation of good motion pictures if this subject were studied and taught as a part of the school program in English?

With an abiding faith in education as a corrective force over all social evils, we submit for your consideration the following:

Organize in each high school a High School Better Films Committee to review and report upon motion pictures showing in your local theaters. Each week a reviewing committee from one of the English classes will visit the downtown theaters and on the following morning submit a report. Senior, junior, sophomore and freshman classes will be called upon to do this reviewing in turn. All reports, before being posted on the bulletin board, must be approved by one of the English teachers, thus making the review serve the double purpose of English composition and visual education.

The entire student body should be urged to confine their movie attendance to pictures recommended by the reviewers.

Once each month or oftener the English classes will devote a special period to motion picture study, discussing the month's films from an artistic and dramatic standpoint and hearing the report of the reviewing committees.

In furnishing a criticism on films viewed the following topics are suggested:

1. The theme should be fundamental to the picture, and it should involve that which is of social interest in a constructive sense. Wholesomeness is a major consideration.

2. The main problem should be vital and interesting. The secondary problem should complicate, be relevant to, and build up the main problem. The solution should bring in the elements of suspense and climax. It should satisfactorily solve the minor problem and should solve completely the main problem.

3. The cast should be well chosen. The players should possess the qualities of appearance, ability, and dramatic art to interpret properly the characters they represent.

4. The photography should be good. The lighting should be properly focused. The settings should give the proper atmosphere to the story. Novel, artistic, magnificent settings should not detract from the story.

CHARACTERISTICS OF HIGH-SCHOOL SENIORS

The *High School Research Bulletin* of Los Angeles gives the following summary of conclusions reached in a study of high-school Seniors made by Mrs. Hendricks of the research staff.

The evidence examined in this study justifies the following conclusions:

1. The Los Angeles Seniors rank above the group of Seniors used to establish norms for the Miller Mental Ability Test in intelligence score and chronological age. The middle 50 per cent of the group made scores ranging from 64.2 to 87.8.

2. The scientific and classical courses attract the ablest students, and the group of students completing a home economics course ranks lowest on these intelligence tests.

3. Many Seniors who possess mediocre intelligence are going to college. Many of the brightest students graduating from our high schools are not going to college.

4. High-school Seniors are not giving much thought to the selection of life vocations. The number who had selected a vocation was identical with the number who had not. The median for those having selected an occupation was slightly higher than for those who had not.

5. Correlation between intelligence score and school grade was positive, though low, indicating that, although mental capacity is essential for success in school, other factors play an important part in attaining school success.

6. It is evident from the positive correlation between T score in the Thorndike-McCall Reading Ability Test and intelligence score in the Miller Mental Ability Test that intelligence is an important factor in silent-reading ability.

7. The distribution table shows that, while all occupational classes are represented in the senior classes, they are not represented in proportion to the numbers actually engaged in these occupations. This may be due to financial reasons or to the fact that our high schools have only recently begun to adapt themselves to meet the needs of the laboring classes.

8. A comparison of the groups of Seniors who have, and those who have not, held offices indicates that the student body is not usually misled by the fluent talker or aggressive person but recognizes intellectual superiority in the selection of officers.

CURRICULUM-BUILDING IN THE RURAL HIGH SCHOOL

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One of the outstanding problems in public secondary education in this country is that of curriculum-building. Three factors have played a large part in hindering the adjustment of the curriculum to contemporaneous needs: (1) the vagueness of objectives in secondary education, (2) the comparatively narrow and rigid demands of higher educational institutions, and (3) the attitude of curriculum-builders who have approached the problem from the angle of attempting to justify subjects and subject-matter now in high-school curriculums rather than from the point of view of seeking to determine what subjects and subject-matter are best adapted to meeting contemporaneous and future needs.

Though changes in curriculums have come about, particularly in urban high schools, in general, such changes have been slow and more or less haphazard. "Liberal" curriculums especially have not kept pace with the changing needs of society. In rural high schools changes in the curriculums offered either have not taken place at all or else have taken place very slowly. Here the prevailing "liberal" curriculums have continued to be in their major aspects those borrowed from urban high schools and found in such schools when they catered to the select few.

According to the *Report of the Commissioner of Education for the Year Ended June 30, 1918*, over 50 per cent of the public high schools of the country had fifty or less pupils enrolled, and 75 per cent had 100 or less pupils enrolled. Of all of the high schools in the country, over 84 per cent were classed as rural, of which practically all had enrolments of less than 125 pupils. A recent study of the 609 rural high schools of New York showed that 552 of them were situated in centers of 2,500 population or less and that 332 or 54.5 per cent had

enrolments of less than fifty.¹ The report of the Commissioner of Education referred to gives 56 as the percentage of city high-school pupils pursuing academic curriculums in 1917-18 as compared with 91 per cent of the rural high-school pupils.

An analysis of curriculums suggested by several states for small high schools and of reports on the curriculums of rural high schools in recent state school surveys indicates that the work of the majority of such schools is still limited largely to curriculums designed primarily as "preparation" for college. The emphasis in most of them is on languages and mathematics. Increased attention is being given to social and natural sciences. Ancient and medieval history are, however, the social-science subjects most commonly offered in the first two years. Modern European history, American history, and other social-science subjects that may be closely related to American life are generally available only in the last two years of the rural high school—a stage reached by less than one-half of the pupils. With few exceptions, the work in the natural sciences is a "pocket edition" of college science. The work of the first two years in the rural high school is largely required of all pupils, and the requirements are in subjects preparatory in nature—of deferred values. Elective subjects appear usually in the third and fourth years only and find their place as a result of the application of no well-defined principles of selection. In the smaller schools, if electives are offered, they are likely to consist mainly of additional units of the same subjects required in the first two years, e.g., foreign languages and mathematics.

Statistics for the country as a whole indicate that approximately one-half of the pupils who enter rural high schools never reach the third year and that over three-fifths of those who enter never get as far as the fourth year. Of those who are graduated, less than one-half continue their education in higher educational institutions. Less than six out of ten of those continuing their education enter colleges and universities.

Assuming that the ultimate aim of the rural high school is the promotion of the pupil's development toward individual and social

¹ In New York all high schools in centers of less than 4,500 population are classed as rural high schools.

efficiency, one gains a vantage point from which to make an approach. It follows necessarily that the work of the school should be determined with regard to the needs of the pupil in the society of which he is a part. The high school, if it is to serve its purpose in the most effective manner, must, with respect to its curriculums and other educational means, meet the demands of today. It must assume the responsibility for meeting in the highest degree possible the needs of its entire pupil-population. These needs are to be determined by the maturity, capacities, and interests of the pupils as they are and the demands of life as shown by the activities of society.

Though the activities in which different individuals engage will vary somewhat, depending on the community in which the individual lives and his vocational and other interests, the demands on all may be roughly classified as belonging to a few overlapping, but fairly distinct, groups. These groups are: (a) demands on health, (b) economic demands, including the vocational, (c) social demands, including the civic, (d) intellectual demands, (e) recreational or avocational demands, (f) aesthetic demands, (g) religious demands, and (h) moral-ethical demands. With the possible exception of the religious, the rural high school is directly concerned with all of these groups in setting up its educational objectives.

Through its program of studies as a whole and through each of its curriculums, the rural high school should undoubtedly work toward all of the major objectives of secondary education. These objectives will be determined through an analysis and an evaluation of the groups of demands mentioned. This analysis should be made with special reference to the environment and background of experience of rural children of high-school age and with attention to the work done by educational agencies other than the school. The limitations of the school because of teaching staff, equipment, etc. may restrict it in the amount it can do in certain directions but should not restrict it in its range. It should organize its work as an institution with a task of its own to perform. The fact that a majority of its pupils complete their formal education either at the close of the high-school course or at some point within the course suggests that the curriculums of the rural high school should be organized

to give every pupil those educational experiences which will be most valuable to him and to society. The special requirements of advanced schools should be regarded as a problem of secondary importance. With careful guidance of pupils, high-school work thus determined should give the best preparation for advanced training to those desiring to continue their education.

From the point of view briefly indicated in the preceding paragraphs, certain principles of curriculum-building for the rural high school are offered. The writer believes that the observance of these or similar principles should give a much more functional type of secondary education in rural communities than that generally available at the present time. With some exceptions, throughout the discussion the term "subject" is used as denoting the unit of subject-matter in curriculum-building. This does not mean that the present subject-matter content or organization of secondary-school subjects is regarded as the best available. For this discussion, however, it is assumed that the selection and organization of subject-matter in each subject will be determined by the ends which that subject is to serve in any particular curriculum. Although the principles offered are intended primarily for the regular four-year high school, they are applicable to the junior-senior plan of organization.

In the application of the principles to the actual development of a curriculum two types of subjects must be considered—constants and variables. Those subjects essential in the promotion of health, in the preparation for citizenship in a democracy, and in the acquirement of a command of the vernacular, and hence highly desirable in all high-school curriculums, are constants. In the junior high school period certain other subjects, such as general science, literature, and music, taught largely from the standpoint of appreciation, are generally regarded as constants. Subjects which offer opportunities for diversification or differentiation are variables. In any curriculum the variables are of two kinds: (1) those subjects which compose the core of the curriculum and the closely related subjects, differentiating it from other curriculums—group or curriculum variables; and (2) those subjects which may be elected by any pupil pursuing a certain curriculum but which are in no case specifically required for the

completion of the work of that curriculum—subject variables or electives.

1. *The program of each rural high school should contain as many curriculums as can be adequately handled by the teaching force with the facilities available.* This principle means that within the limits of its teaching staff and equipment each school should offer a curriculum for every considerable group of pupils, the needs of which demand for their satisfaction a core of subjects different from those specifically selected to meet the needs of other groups. The number of pupils in a particular group should always be sufficiently large to justify the forming of classes in the core subjects of the curriculum. There are no definite criteria available as to the minimum number of pupils for whom a class should be formed in a rural high school. It would seem that any number less than ten should ordinarily be regarded as insufficient in the first two years with a minimum perhaps of five in the last two years. Some support is given to these estimates by recent studies. The median and first quartile classes in the New York rural high schools contained 10.2 and 5.3 pupils respectively, and the figures for the high schools of Connecticut and Massachusetts with an enrolment of 100 or less pupils were approximately the same.* Pupils of all groups may take together the constants and such electives as are common to all curriculums. In case the number of pupils in a group is not large enough to justify classes in the core subjects specifically adapted to their purposes, the needs of such pupils should be met, in so far as possible, through the most closely related curriculum.

Where the junior high school type of organization is used, distinctly differentiated curriculums should not begin before the last year of the junior high school or the first year of the senior high school. One of the functions of the junior high school is opportunity for differentiation of work according to varying capacities and interests. Such diversification should be made possible in the junior high school through subject variables rather than through curriculums.

* EMERY N. FERRISS, *Rural School Survey of New York State: The Rural High School* (Ithaca, New York: Joint Committee on Rural Schools, 1922), p. 44; JESSE B. DAVIS, *Organization and Administration of High Schools in the State of Connecticut* (1921), p. 5; *Report on High Schools for the Year 1917* (Massachusetts Board of Education Bulletin No. 5, 1918), p. 16.

In rural communities the junior high school curriculum should probably be of the constants-variables type, permitting differentiation and exploration through the group of variables offered. The important point is that in the offering of variables in the junior high school should be found in its beginnings the core of each of the differentiated curriculums available later in the senior high school. To illustrate, a school offering curriculums in agriculture and home-making in the senior high school should in the junior high school give opportunities for prevocational work in agriculture and home-making.

2. *The core subjects of each curriculum should be those subjects bearing directly on the attainment of the group of specific educational objectives for which the curriculum is designed.* The idea of a curriculum built around a core is old. There have been, however, many interpretations as to what should constitute the core in a secondary school. The core has been most commonly interpreted in small high schools as those subjects of a curriculum required as preparation for college entrance. At other times it has been regarded as being made up of those subjects essential for training in health, citizenship, and the use of the vernacular. A recent article suggests that the pupil is the core. All such interpretations seem to miss the fundamental characteristics of a core subject. Briefly stated, a secondary-school curriculum is an organization of subjects to meet the educational needs of a group of pupils of similar interests and life-purposes. If this definition of a curriculum is accepted, the core is logically those subjects directly appropriate to the attainment of that special group of objectives for which the curriculum is planned. For example, the core of a college preparatory curriculum in science is composed of subjects in science, while the core of a curriculum in vocational agriculture is made up of vocational subjects in agriculture. In both instances there should be the constants of English, elements of social science, physical education and hygiene, etc. These constants, however, are not in any true sense the core subjects. They are common to all curriculums. They are the primary means for the attainment of those ends regarded as desirable in the education of all secondary-school pupils. The core of each curriculum should be composed of those subjects which aid directly

in the acquirement of those skills, elements of knowledge, attitudes, and ideals necessary in reaching that group of objectives with reference to which the curriculum is planned.

3. *The curriculums offered should be of the type best suited to meet the needs of the pupil-population of the school.* In determining for any rural high school the types of curriculums to be offered information should first be gathered with regard to the economic, vocational, civic, social, recreational, intellectual, and health status and interests of the community. The resources of the school plant and the possibilities of expansion should be carefully determined. All available facts concerning the present pupil-population should be brought together. In addition, a study should be made of the present activities of former pupils, both graduates and non-graduates, over a period of at least five years. The educational assets of all institutions in the community other than the school should be estimated. All of the data acquired should furnish the basis for determining the types of curriculums, both liberal and vocational, to be organized. They should also be used in determining the nature of the differentiation to be permitted within each curriculum.

It is an established principle in vocational curriculums that the content of the core and closely related subjects should reflect in a specific way the vocational needs of the community. This principle has not been recognized with regard to liberal curriculums. In rural high schools especially the liberal curriculums have been practically the same for all schools of a state, and in some cases uniformity in subject-matter has been required. The bases for variation with respect to liberal curriculums in schools serving different communities should be clearly determined, as in the case of vocational curriculums. Liberal curriculums should be developed with definite reference to the pupil-population of the schools and the type of community from which the pupils come. They should all contain subjects valuable in the attainment of the major objectives of secondary education. The subjects and their subject-matter content, however, should be determined with reference to the educational resources of the community and the needs of the pupils in attaining the several objectives most effectively. Liberal curriculums in

particular schools should also give emphasis to such subjects as supply deficiencies peculiar to the community for the pupils of which they are planned.

In general, every rural high school should keep the road open for those pupils who wish to continue their education. In its liberal curriculum it should offer at least the minimum number of subjects required for entrance to the higher institutions to which its graduates ordinarily go. In case the number of pupils desiring certain preparatory subjects is very small it might be more practicable to send such pupils to another school during the last year. A group of neighboring high schools might find it advisable to co-operate for the purpose of increasing the offerings of the group. Under a junior-senior high school organization the preparatory function should be considered only in the senior high school.

In a school so small in number of pupils attending and in size of teaching force as to make impracticable more than one curriculum this curriculum should ordinarily be of the liberal type. However, it should, if possible, contain among its variables subjects of vocational bearing chosen in the light of the vocational needs of the community. In a larger high school capable of maintaining three curriculums, in addition to a liberal curriculum, there should be a curriculum in homemaking of either the liberal or the vocational type. A third curriculum of a vocational type, to be determined by the findings of the preliminary survey as to the most urgent educational needs of the community from a vocational standpoint, should be offered.

4. *The prevailing characteristic of any curriculum should be that of extensivity or diversity in the earlier years gradually changing toward intensity or concentration in the later years.* Under the plan of organization commonly followed at the present time, especially in the rural high schools, the curriculum in the first two years is narrow and composed largely or entirely of required subjects. Opportunities for differentiation through election are afforded only in the third and fourth years. This plan of curriculum organization is based on the theory that pupils in the early years of the high school are not prepared to elect subjects intelligently, though they are often asked to choose curriculums. It has also been due in part to a false notion

as to the subjects to be considered as constants. Generally, the subjects basic to a college preparatory curriculum have been regarded as both the desirable constants and the core subjects for all curriculums. As a result, all pupils have been required to take a foreign language, algebra and geometry, and ancient and medieval history or general history as the backbone of their work in the first two years. Thus the work of the first two years has been largely in subjects valuable primarily to those carrying their work beyond the high school. This plan of organization has tended to do three things. In the first place, it has disregarded the needs of the majority of the pupils in the average rural high school; in the second place, it has hindered the adaptation of the work to the capacities and interests of the pupils; and, in the third place, it has made practically impossible any system of guidance or exploration through the curriculum.

The observance of the principle of extensity to intensity should operate to remove such weaknesses in the rural high school. It stresses the importance of many and varied contacts for the pupil beginning his secondary-school work and requires him to concentrate gradually, as he finds himself, on a line of work clearly differentiated as to its core or major subjects. To give a pupil at the beginning of his secondary-school career a broad range of educational experiences closely related to contemporaneous life is probably to give him the maximum in the way of liberal training, particularly if he leaves school early. On the other hand, if he remains in school, he is given some opportunity to find himself before entering on a differentiated curriculum. Extensity or diversity in the early years of the secondary school tends to counteract any tendency to undue specialization. Gradual increase in intensity or concentration in the later years on a narrower group of core subjects gives continuity to the pupil's work and does not permit of haphazard election.

There are three methods of obtaining extensity in the early part of the rural high school curriculum: (1) by placing in the early years subjects broad in scope, such as general science, projects in community civics and history, and prevocational work in agriculture, domestic arts, etc.; (2) by offering diversification through variables of the regular academic type adapted to the pupils' capacities and

interests and required for only comparatively short periods of time; and (3) by a combination of (1) and (2). Under the junior-senior plan extensity should be the prevailing characteristic of at least the first two years, gradually changing to concentration on a distinctly differentiated curriculum in the senior high school period. Under the regular high-school organization extensity should be the prevailing characteristic at least during the first year. In the last three years of the regular high school or in the senior high school period, the curriculum should concentrate more and more on the subjects composing the core and the closely related subjects. In this period election should be restricted largely to subjects taught primarily from the appreciational standpoint, such as music, literature, art, etc. In addition, some variation might be permitted within the core subjects in the case of pupils who are particularly interested in a certain subject within the core.

5. *Every time unit of each curriculum should contain subjects of immediate value, the relative number, in general, being inversely proportional to the amount of time available for training through that curriculum.* A time unit is thought of as a semester or shorter term considered from the administrative standpoint as a unit in the organization of the work of the school. In the organization of any curriculum the maturity, interests, and needs of all of the pupils pursuing the work of any time unit should be the first consideration. Such consideration will help to determine the place of each subject in harmony with economy in the learning process. It emphasizes at each point the subjects or phases of a subject best adapted to the pupil. Each time unit should be developed with cognizance of the fact that some pupils will probably go no farther and hence should contain subjects of immediate value in life activities.

The application of the fifth principle bears also on the problems of selection and organization of subject-matter within the subjects themselves. The consideration of such problems, however, lies beyond the scope of the present discussion.

As curriculum-building for rural high schools develops a more scientific technique, curriculums of varying lengths will be evolved to meet the needs of the various types of pupils whom the schools should serve. The beginning of curriculums of different lengths

is already to be found in vocational training for persons not able to attend the entire school year yet desiring to improve themselves in more or less specific directions. The future will probably see liberal curriculums in rural high schools specially planned for persons continuing their education under similar difficulties. As curriculums of this type develop, the fifth principle will become increasingly important. The less time available for the work toward the specific objectives of a particular curriculum, the greater should be the emphasis on subjects or phases of subjects of immediate values and the less on abstract, theoretical, and technical subjects or subjects only indirectly related to the objectives fundamental to the curriculum. In other words, the relative amount of time given to the core subjects should be inversely proportional to the length of the curriculum. As an illustration, a four-month curriculum in homemaking or agriculture should be almost entirely limited to material of immediate values. A four-year curriculum in either field, however, may well give a considerable proportion of its time to material of a theoretical and technical nature and to subjects of indirect and appreciational values. Likewise, a four-year liberal curriculum should have a smaller proportion of its subjects of immediate values than a two-year liberal curriculum of secondary grade planned for a continuation school.

6. *In liberal curriculums subjects primarily preparatory to work in higher institutions of learning should come in the later years of the high school; likewise, in vocational curriculums theoretical and technical subjects should be placed in later years.* As regards vocational curriculums, this principle should not be interpreted as excluding certain subject-matter elements of a theoretical or technical nature intimately related to the project work of the earlier years. The principle is based on the relative value of the subjects in meeting the needs of the greater number of pupils. It follows the assumption that there will always be in the rural high school a relatively large number of pupils who will either not complete the work of any curriculum or never go beyond the high school. It emphasizes with the fifth principle the desirability of organizing the work of the school to meet most directly the needs of the majority rather than the minority of the pupils. Both principles call attention to the fact

that the length of the pupil's high-school life is an important factor in ordering his work.

7. *Within the limits of the teaching force and the number of pupils every curriculum should offer a variety of subjects directly proportional to the time available for training through that curriculum.* In large high schools with a large teaching force and with large groups of pupils with similar aims the organization of distinctly differentiated curriculums can be effected. Such schools can offer several curriculums of a liberal or academic type, meeting the needs both of those pupils not going beyond the high school and of those pupils preparing to enter higher institutions of one kind or another. They can also offer opportunities for vocational education in several fields. The small high school with its limitations cannot offer many curriculums and hence cannot differentiate so closely as the large school. As a consequence, its less clearly differentiated curriculums make desirable greater opportunity for diversification within each curriculum, with regard both to subjects within the core and to subjects outside the core. To meet, in so far as possible, the wider range of interests and abilities of the less homogeneous groups of pupils pursuing certain curriculums, the small high school should offer variety within each curriculum. The amount of variety possible will depend on the teaching load of the instructors and on the number of pupils desiring any particular subject. In any curriculum the amount of time necessary for teaching the core subjects will also be a determining factor.

8. *Each curriculum with respect both to subjects and to subject-matter should be flexible and elastic to permit of adaptation at all times to changing objectives resulting from changes in the needs of society and differences peculiar to communities, to permit of the presentation of subject-matter elements in normal situations and according to the best methods, and to permit the use of more effective subject-matter elements as discovered.* No curriculum or curriculum organization for rural high schools based on sound principles can ever be considered as a finished product. It must always be in the making. It should be an instrument subject to modification as the work for which it is designed changes or as the means of accomplishing the ends change. One great weakness of secondary education, particu-

larly in rural high schools, has been and is its lack of flexibility and elasticity. It is important that it be modifiable as demands are altered. It is highly important that its effectiveness be measured, not on the basis of what justification can be found for the existence of any curriculum as it is, but rather on the basis of how it should be altered to become more functional. The procedure in the organization of any curriculum should be from the needs of the learner and society *in* to the curriculum rather than from the curriculum *out*.

In the junior high school, curriculums as such should not be distinctly differentiated, at least in the first two years. The proportion of time devoted to subjects of the constants type will necessarily be large. In the junior high school the variables offered are the principal means of providing for diversification in the direction of the pupils' capacities and interests. The variables should be as numerous as possible and should offer as many different kinds of educational activities as the resources of the school will permit. Every junior high school should offer as variables subjects which supply the beginnings of the core in each of the differentiated curriculums in the senior high school. They should be considered primarily for their exploratory or guidance and prevocational values. Pupils should be permitted to choose their variables under sympathetic guidance and should be required to pursue a variable when chosen but a relatively short period of time. Where the resources of the school make it possible a number of variables organized in short units and representing a variety of types of activity might be required of all pupils as exploratory work. If interested and apt, a pupil should be permitted to give a gradually increasing amount of time to a chosen subject. Where the four-year high-school plan is followed, the work of the first year should approximate the junior high school type of organization.

In the senior high school or in the last three years of the regular high school, curriculum differentiation should be as clearly marked as the resources of the school make practicable. The proportion of time given to the core subjects and related groups should gradually increase. Each curriculum should contain subjects of the constants type, such as English, physical education and hygiene, and elements of social science essential in civic education, the proportion of time

devoted to such subjects gradually decreasing as the minimal requirements in the different constants are met. Through every curriculum should run a margin of subjects of the elective type.

To make more concrete the principles suggested, the various possible elements making up two type curriculums, one liberal and the other vocational, are given. The liberal curriculum is developed somewhat in detail. Both refer to the organization in the regular high school.

- A. A liberal curriculum designed for pupils whose major interest is in the biological sciences might have the following organization:
 1. Core subjects: general science, biology, botany, etc.
 2. Closely related group: chemistry, physics
 3. Remotely related group: history, foreign language, or mathematics
 4. Constants: American history and civics, English, physical education and hygiene
 5. Electives: music, art, literature, history, etc.
- B. A vocational curriculum:
 1. Core subjects: vocational practices, etc. through projects
 2. Closely related group: theoretical and technical subjects
 3. Constants: same as in liberal curriculum
 4. Electives: any subjects not required in Groups 1, 2, and 3

Limited as it is by a small teaching staff and a small pupil enrolment, the rural high school cannot offer a large number of curriculums. Its problem is to give its pupils the most in the way of secondary education of a functional character with the limitations forced upon it. Hence it must determine the nature of its work more carefully even than the larger urban high school. So far as it can differentiate, the differentiation should be in the direction of serving best the needs of the greatest number of pupils. The observance of principles such as the eight suggested, in building its curriculums, will aid in reaching this end. In the past too often the main reason for the existence of many rural high school curriculums has been that they have not required the pupils choosing them to take certain subjects, not that they have led to the attainment of definite ends. The differentiation has been negative in effect. Any curriculum organized on the plan suggested would have at least the justification that it has a distinct core and that it offers to a group of pupils the opportunity of pursuing a group of subjects of positive values in the attainment of specific ends.

INCREASING EDUCATIONAL OPPORTUNITIES FOR HIGH-SCHOOL GRADUATES

GRACE T. LEWIS

Mount Vernon High School, Mount Vernon, New York

We have done a great deal in this country to provide education—free education—for all. Nevertheless, it is evident to the thoughtful that there are inequalities of opportunity based on economic and social conditions that cannot be met by increasing the length of the school year, enriching the curriculum, or doubling the salary of the teachers. With varying degrees of frequency, all of us who have come in personal contact with high-school students have met those who appreciate education but for whom high school seems the limit of regular, organized school work. College scholarships for entering students are few, and the brilliant and the athletic are conspicuous on the overcrowded lists of applicants. A recent study of high-school Seniors in a western state brought out the unfortunate fact that large numbers of our most promising high-school students, in that locality at least, do not plan for, or continue in, higher institutions after graduation. One must infer from the very complete data presented that the cost involved looms up as an impassable barrier to many. It is a rather pertinent question whether our duty to the state and to the individual is done when we offer free high-school education and a few competitive scholarships that pay but a small fraction of college costs and set up a few free-tuition institutions in various educational centers.

Realizing the need for supplementary financial assistance intelligently given, the Mount Vernon, New York, High School has just made plans to provide for her own students. A public appeal was made October 26, 1922, for a \$10,000 Students' College Fund. In three months more than the amount asked for was pledged, and a permanent fund of considerable size was raised on which the school can draw. Many times our students have been

aided unofficially. Sometimes a teacher gave help directly; sometimes friendly townspeople were called upon. It almost seems unnecessary to detail what the school has done in the past in the way of personal help, for we would enumerate more or less common experiences of any high school alive to its duties and privileges. Once a boy was given an overcoat; a college Senior, suddenly without capital, was given the small amount necessary to allow him to graduate; a talented, eager student, thrown on his own resources, was allowed a term's tuition to start him without further loss of time on the long steep hill to fame and honor; again, an ambitious, conscientious girl, a "born teacher," was helped in meeting teacher-training bills. This is not charity but helping young people to help themselves, giving them a fairer chance of starting life less handicapped by social inequalities and poverty. According to Bureau of Education Bulletin No. 22, 1917, the money, time, and energy invested in raising the fund will be repaid with a very high rate of interest in the years to come.

The child with no schooling has one chance in 150,000 of performing distinguished service; with elementary education, he has four times the chance; with high-school education, eighty-seven times the chance; with college education, 800 times the chance.

Dr. Jeremiah E. Burke, superintendent of the Boston public schools, in his last annual report, says:

Nation, state, city, town—all must unite in furnishing unlimited educational, recreational, and vocational facilities, for our children and our youths. . . . We must place the school directly in the pathway of our boys and girls, as so many ladders whereby they may climb upward and onward.

An ambitious and expensive program, I hear you protest. My reply is this: Democracy is expensive. It has been secured through infinite toil and sacrifice. It has cost the world its best blood and treasure. Our greatest national assets are, first, education—free, universal education; and, second, its resultant—the highest possible degree of personal, civic, and national intelligence and righteousness.

On the other hand, democracy's greatest national liability is ignorance. Parsimony in education means bankruptcy. In education we must spend freely that we may save. Education is more than insurance. It is our assurance against tomorrow's ills. Intelligent citizenship is the future's hope. Let us not forget. And let us be unyielding and insistent about the supereminence of education in a democracy.

The Mount Vernon High School is just completing its thirty-first year. It is located in a New York City suburb which has proudly borne the title of "The City of Homes," though today its manufacturing interests and its proximity and easy access to the Great City have introduced new and complex elements into its life. It has become increasingly evident that some of our boys and girls are having to work too hard and too continuously outside of the school-room during the high-school period for immediate needs to make it possible for them to save for college expenses. In the spring of 1922, when two cases seemed especially worthy of help and no funds with which to give it were available, two teachers of the school agreed to see one student through her first year of college, that is, to supplement her summer earnings. It was a rather heavy responsibility for them to assume, helped only one, and was clearly a temporary relief of a recurring difficulty. The dean of the school then decided that only a permanent fund, of some size, would relieve the yearly need. During the summer the idea grew through its own vitality and the encouragement of interested friends. An executive committee of ten faculty members was appointed, and at the first general high-school faculty meeting in the autumn, the announcement was made that a campaign to raise \$7,000 was about to start. The principal heartily indorsed the plan and raised the goal to \$10,000. The executive committee, at a meeting held immediately afterward, laid down the eight points by which the fund is to be governed in the future.

1. The committee having charge of the granting of funds shall consist of the principal, the dean, and three members of the teaching force. The representatives of the teachers shall be so elected that one member needs to be elected each year. No teacher shall be eligible for re-election until one year has elapsed.

2. The committee will meet as often as necessary and will act on applications and recommendations.

3. The members of the committee will base their favorable consideration of candidates on character, ability, and promise. The need for aid must be established by the candidate.

4. The findings of the committee will be private.

5. Students needing help with their first-year college expenses will be given the preference. In exceptional cases, fourth-year high-school students may be aided.

6. Funds distributed will be given to the recipients, not lent, but each candidate will understand that, if in the future he can repay the money, it will be used to the advantage of other applicants.

7. The amount lent will in each case be at the discretion of the committee and can only be from the interest earned by the capital invested.

8. Actual investment of capital will be in securities that are legal investment for savings banks or trust funds.

It hardly seems necessary to comment on any one of these items, with the possible exception of No. 6, which was the subject of considerable questioning on the part of some of those who were most concerned with the success of the plan. The executive committee felt very strongly that, in the administration of this particular fund at least, no student should be asked to mortgage his or her future with any binding promise to "pay back" money used. Our belief, strong enough to be called a conviction, was based on observations of what it costs in this part of the country to go to college and on our knowledge that those we most desire to help would not be willing to bind themselves to any set of conditions we might lay down. If our committee thinks of the money we have to dispose of as so much gold to be niggardly doled out, and its return anxiously awaited, we have simply raised another fund which can do only a limited amount of good, and we shall miss the very ones for whom no help is usually forthcoming. If, however, our attention is concentrated on the boy, we will be more concerned about his handicaps and more willing to give him a start. The son of foreigners, who is acting father for a large family of younger brothers and sisters, who has sickness and helplessness at home, and who has had to work during his entire high-school life to help support his family, can have had no opportunity to earn high marks. Such a boy would be unwise to pledge himself to return money lent him, and we would be unfair to ask him to do so. The colored girl, whose work has been faithfully and creditably done in adverse surroundings, should be encouraged to carry out her longing to prepare herself for teaching. She can do a very great work among her own people, but the chances are against her being able to repay, in dollars and cents, the money expended in helping her prepare for this service. A little thought should convince the reader that this stipulation is wisely planned and should stand as it is. Those we help, to whom prosperity

comes, have ample encouragement to remember the fund for the sake of future applicants.

Before going to the public, thirty-seven of the forty-three teachers in the academic department of the school voluntarily pledged \$665 to be paid some time before June, 1923. Having given, we could the better ask for contributions from others, and our gifts were eloquent testimony of our belief in the real need for such a fund.

The dean, who acted as chairman of the executive committee, was responsible for practically all of the publicity in connection with the various activities undertaken to complete the fund. Letters of appeal were sent to about 2,500 citizens, known to be friendly to the educational interests of the city, on the same day that a carefully prepared explanation appeared in the city paper. The letters were multigraphed, with the salutation typewritten and the name of the chairman personally signed. Each letter was accompanied by a pledge card.

This letter was followed by two other form letters, similarly prepared, each one sent when the force of the preceding one seemed to have been spent. Whenever any available "copy" presented itself, it was printed in the local paper, and two notices appeared in New York City dailies. No advertising opportunity was consciously lost. Leaflets, describing the fund and the conditions governing its administration and containing a pledge card, were distributed at several evening entertainments and lectures held in the high-school building. A copy was wrapped in each parcel sold at a great cake sale, gotten up by two mathematics teachers. This sale cleared about \$230 for the fund. It had been advertised by post card and on the leaflets mentioned. It was probably the largest sale of its kind ever held in the city; some four hundred articles—cakes, pies, doughnuts, bread, and candy—were donated by parents and friends of students in the mathematics department. Small relays of students acted as messengers, delivery clerks, and assistant salesmen and saleswomen under the direction of the teachers who ran a twelve-hour sale. During the afternoon of the same day, in a hot and crowded kitchen and in the biting wind of the field, three or four other teachers directed a small army of youngsters who peddled "hot dogs," peanuts, and candy to a large football

crowd on the athletic field behind the high school. Two such sales cleared \$80 more for the fund.

The most ambitious undertaking, and the one that brought in the largest returns, was the staging of a faculty play on the evenings of December 8 and 9. Preliminary plans were made in June. A play was selected and a cast set at rehearsal by the middle of September under the capable direction of a professional coach, a resident of the city who was sufficiently interested to offer her services. A month of haphazard rehearsals clearly showed that results would not be satisfactory, and failure seemed inevitable. A frank discussion of the matter brought forth the fortunate suggestion from one of the teachers that three one-act plays be presented, and the search for suitable plays began afresh. No better selection, probably, could have been made than that finally agreed upon: "Joint Owners in Spain," a comedy in one act, by Alice Brown; "Overtones," a comedy in one act, by Alice Gerstenberg; and a portion of *Les Précieuses Ridicules* by Molière and translated by Barrett H. Clarke. Two friends of the school, one a singer and one a violinist, volunteered their services, one each evening, and the ever-willing school orchestra played both evenings. Two teachers arranged a sixteen-page program, in which merchants advertised. The Board of Education provided the use of the building, janitor service, etc. free of charge. Despite a very heavy storm which made walking and riding equally dangerous, the school auditorium, which holds 900, was well filled each evening, and over \$900 was cleared. The principal of the school made a personal appeal, and as a result approximately \$100 in addition was handed to the teachers who acted as ushers. No one can deny that the work was heavy, the anxiety keen, and the responsibility great, but most of us feel that these plays were the means of doing a very great service to the school in ways that cannot be measured in money returns. Some of those who bought tickets from a sense of duty and came expecting to be bored had a delightful surprise and found little to criticize. Coach and actresses had worked hard to rub off the amateurishness so often apparent in school productions. The plays were so varied in character that all found at least one of special interest, and a growing and wholesome respect was frankly expressed for teacher

ability. Too often we are content merely to follow our vocation and to expect public appreciation and esteem to result naturally, forgetting that the parents who expect us to be more than "ordinary" teachers of subject-matter are disappointed when we fail to show versatility. In so far as we can be doers of our work and then doers of the unusual—not drudges but master workers—we enhance our influence and make our relationship the more cordial and fruitful.

The director of music in the high school, anxious to do his share, composed a very catchy march and two-step, "Our Colors," which he dedicated to the high school and published through the kindness and generosity of a nationally known music publisher who lives in the city and who had generously contributed to the fund. Over \$165 has already been cleared in the sale of this music in the school and through the music and department stores of the city.

No enumeration of faculty work would be complete without mention of the personal calls made on people of means whose contributions were sought. Some seventy-five personal letters were written by the dean to those whom we could not see. No known way of approach to likely "prospects" was neglected.

The students and the alumni were appealed to. The students, through their general students' association, paid \$1,000 in cash, most of it immediately available as a result of a successful football season. Several clubs sold candy in the lunchroom and gave up refreshments at club meetings to aid the fund, and one club sold pencils to increase its contribution. There was an interest and spirit of sacrifice evident that meant much to all and brought teachers and students more closely together. Forty students, called together by the dean, went out to visit friends and acquaintances and proved to be good advertisers as well as good collectors, bringing in hundreds of dollars. Several elementary-school principals and one elementary school signed pledges, and, on the invitation of the Home and School Association of one elementary school, the dean spoke at an evening meeting in behalf of the fund. Last, but not least, all of the printing, except that for the play programs, was done, free of charge, in the School of Industrial Arts print shop, through the co-operation of the superintendent of schools, the direc-

tor, the teacher in charge, and an interested class in printing, and proved the equal of professional work.

A large graph was mounted in the entrance hall to the school building and was kept up to date by a mathematics class; one of the examples of the term examination was based on fund figures, and every effort was made to make the campaign seem vital and interesting.

No alumni association being in existence, prominent alumni of the past fifteen years were asked to solicit pledges from the members of their classes and generously responded to this appeal.

In view of the fact that the city had just had a veritable orgy of drives, the cordiality with which our appeal was received was a relief and a pleasure to us. Two gifts of \$500 each were received from two prominent women, and a number of \$50 and \$100 pledges came in, many of them from unexpected sources. Many hands were extended to make the work lighter, and many expressions of appreciation and approval gave encouragement. The city paper published a commendatory editorial and several "Letters from the People," written by the superintendent of schools, the president of the Board of Education, a prominent educator who lives in the city, several well-known citizens, a man who was helped by the school when a student, etc. The paper also took, as before stated, all of the publicity material furnished. About the only seeming limit to space was the limit of time the school had to give to writing up what it wished published. One man, interested by a student and a personal letter, collected \$135 from his business associates; another made every effort to see that those with whom he dealt contributed; another suggested several people whom we might ask and followed up our personal appeals with his own. At the suggestion of the president of the Rotary Club, one of the boys of the school spoke at a club luncheon, and our campaign was officially indorsed in the *Rotary News*. Several Masonic bodies, a fraternity, and a country club made unexpected, official pledges. The men's University Club had its attention called to the fund at several of its meetings by its president, and many of the members signed personal pledges. Perhaps best of all have been the pledges of further aid on the part of several generous givers. One offered to

take care of any boy for whom we cannot provide in September; several others said, "Come again"; and another has pledged to take part in a campaign to increase our fund to larger proportions in the near future.

The corporation counsel of the city offered to take the legal steps necessary for the incorporation of the fund, without cost beyond regular court fees. Eight thousand dollars had been invested in securities yielding $5\frac{1}{2}$ per cent per annum four months before the pledges were actually due.

We believe we have a fund large enough for present needs. If, in the days to come, we find ourselves compelled to disappoint and turn away students we should be helping, we will point to our past record and ask for additional funds to do still more.

Five years ago a high-school teacher met a boy, one of many children, the son of immigrant parents, unskilled and ignorant. His parents expected and planned for him to be, like his father, a day laborer; his teacher saw with a greater vision. On her personal appeal, a wealthy resident of the town sent this boy to one of the finest technical colleges in the country. The first year he won honors; the second year, honors and a scholarship; the third year, honors and all college expenses; and the fourth year, honors and all college expenses. That he is beyond the average is clearly apparent; what he is yet to be, time alone will tell as he goes out into life. So unusual a case is not to be found in every school or every year, but we want to be prepared for the unusual and to help those who are equal to our confidence in them. What this school needed to do, others need to do also; what we have accomplished, others may equal or surpass.

We fall far short in our work if we deal in numbers alone and if we consider our task done when promotions have taken place. The glory of our service lies in the fact that we are dealing with the human element which is an unknown quantity and which varies from almost zero to almost infinity. If we will patiently work, opening the door of opportunity again and again and yet again to those we deem worthy, we are bound to be rewarded. We will not only serve ourselves and our own generation but start an endless chain of growing good which may help to make or mar future years.

THE IMPROVEMENT OF TEACHING BY MEANS OF "HOME-MADE" NON-STANDARD DIAGNOSTIC TESTS AND REMEDIAL INSTRUCTION

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Much has been written of late regarding the value of testing as an aid to teaching. A typical statement is as follows:

In a modern business every detail in the manufacture of an object is examined critically. Similarly the teacher should employ a critical examination to measure the results of his teaching. . . . It may be said that the principal value and aim of all testing should be to improve the quality of teaching by means of an analytical exposition of its problems and difficulties. This type of testing is fundamental in the progressive organization of a course.¹

Any teacher who understands the simple principles of testing and who will take the time to think out the material in his subject can make simple, non-standard diagnostic tests that will meet the foregoing requirements and will be less costly and easier to administer than many of the standard tests now in use. This article describes how this idea was tried out in the case of a first-year algebra class in the University of Oregon High School.

The procedure was as follows. A definite goal was set up for the class; i.e., a certain portion of the course was selected as a unit of accomplishment. The various principles involved were then presented. After the presentation of a principle, a test was devised to measure the pupil's knowledge of it. This was followed by a period of remedial instruction. The class was then retested with a check test, devised as nearly as possible like the first test, in order to determine the value of the remedial work and make sure that the class understood the unit presented. The final product was tested by means of a standard test.

The course of study followed in this work was that issued by the State Department of Education for use in the high schools of

¹ E. R. Breslich, "Testing as a Means of Improving the Teaching of High School Mathematics," *Mathematics Teacher*, XIV (May, 1921), 276.

the state of Oregon, and the textbook was the authorized text.¹ No set plan was followed as to when the tests were to be given.

An algebraic principle was presented to the class and explained very much as it is presented and explained in the schools at large. A test was then worked out which tested the pupils on every important combination or phase of that principle. This test was not designed to be unreasonably hard, for its main function was diagnostic. Type problems were therefore emphasized. The tests were short enough to be used in a regular class period of one hour.

All test papers were hectographed so that all of the pupils would have the same chance, as far as vision was concerned, and so that no time would be lost in copying problems. The problems were solved on the test page, but blanks were designated for answers to facilitate scoring. The papers were graded by the teacher with the assistance of some of the pupils. They were first scored on the basis of correct answers, and a percentage score was given each pupil. This is where the usual type of examination stops, but it is where the diagnostic examination begins. In order to find out why all of the pupils did not make perfect scores, it was necessary to analyze the mistakes.

The grading of the papers for diagnosis was done by the teacher, but there is no reason why some of the better pupils could not have done it just as well, thus saving the teacher's time and giving the pupils a beneficial exercise. Table I shows the general form of chart used in this work. Of course, the column titles varied according to the type of examination given.

An hour's work was usually sufficient to complete the table and obtain a true picture of the class achievement. The chart was then copied on the blackboard so that every pupil had a chance to see where he had made his mistakes and how he compared with the other members of the class. His paper was returned to him, and he was instructed to make a list of all of the types of problems in which he had made mistakes and to note the character of these mistakes.

¹ Webster Wells and Walter W. Hart, *New High School Algebra*. Boston: D. C. Heath & Co., 1912.

Diagnosis must be of two types, class diagnosis and individual diagnosis. Class diagnosis is extremely important to the teacher in determining emphasis and procedure, while individual diagnosis is important to the pupil and teacher alike. The class diagnosis was obtained from the chart of the examination by adding the numbers in the vertical columns. The result was sometimes

TABLE I
DIAGNOSIS CHART FOR MULTIPLICATION AND DIVISION*

PUPIL	SCORE	MULTIPLICATION					DIVISION			
		Polynomial \times Monomial	Fractions ()	Polynomial \times Polynomial	() \times () ()	() \times - () ()	Equations	Polynomial \div Monomial	Polynomial \div Polynomial	Fractions
1.....	100									
2.....	93						I			
3.....	79					I				2
4.....	72		I							2
5.....	72			I		I				2
Total errors.....		11	2	11	15	17	21	14	21	28
Possible errors.....		54	27	27	27	27	54	54	54	54
Wrong signs.....		3	0	6	7	11	10	2	4	12
Fundamentals of arith- metic.....		5	2	4	1	5	1	1	2	3

* The totals for the entire group are given, but the detailed information for only five of the pupils is included.

expressed as "efficiency percentage" by finding the percentage of error as compared with the total possible errors. All characteristic class deficiencies are class problems, and the particular phases of the work must be retaught to the class as a whole. Individual deficiencies are of a very different nature and must be handled as personal matters, either individually or in small groups of pupils experiencing common difficulties. They are distinctly not class problems.

The correction of individual difficulties was accomplished during the supervised study periods, when the teacher took up with each pupil who needed attention the particular work on which he had failed. In these periods several methods were used. Sometimes the pupil was assigned a definite set of problems for solution.

Again he would be given special drill cards which the teacher had made out and arranged to emphasize the type of problem with which he was having difficulty. Occasionally, the mistake was merely pointed out and explained with no drill work assigned. When a pupil could not be reached by any of these methods, he was allowed to observe while another pupil solved his problem. In this way he could "get the swing of it" and was then ready for a drill card.

For varying periods of time, depending on the nature of the work and the way in which the class was mastering it, all pupils were working on problems which the test had shown were difficult for them. After this period of remedial work came another test, a check test, devised as nearly as possible like the first but made up of different problems. This check test had the very important function of giving a double check on any pupil who had apparently mastered the work in the earlier test and at the same time measured the results of the remedial work that had been done.

The check test was scored and charted just as the first test had been and treated in the same way in all respects. In this way the pupil was able to compare his two records and measure his improvement as well as form an idea of the adequacy of his knowledge of the subject. If the class showed a satisfactory knowledge of the work in either of these tests, new material was used; if the standing was not satisfactory, remedial work was taken up. This was seldom done more than one time, however, and it should not be necessary more than once on each division of the work.

The diagnostic test (p. 280) illustrates the nature of the examinations used. This test was given when the class had finished a rapid study of multiplication and division. Its purpose was to locate weaknesses in the understanding of the fundamental principles taught. Similar tests can be worked out in a short time by any teacher and class progress determined in a usable fashion.

Class diagnosis for this test was obtained from the chart illustrated in Table I by adding the vertical columns and determining the percentage of efficiency. To illustrate, in column three but two mistakes are reported, and these are shown to be due to mistakes in the fundamentals of arithmetic. This column shows no need for further work on the part of the class on the type of problem

represented. Column six, on the other hand, shows seventeen mistakes out of a possible twenty-seven. Eleven of these mistakes were due to failure to change signs in subtraction, which means that eleven pupils had not formed the correct habit in this case and needed further drill.

Multiplication:

$$\begin{array}{r} 3x+x-5 \\ -9x \\ \hline \end{array} \qquad \begin{array}{r} 5m-6mn-4n \\ 3m \\ \hline \end{array}$$

$$12 \left(\frac{a}{3} - \frac{2m}{3} + \frac{s}{4} \right) =$$

$$\begin{array}{r} m^2-m-3 \\ m+3 \\ \hline \end{array}$$

$$(a-2x)(a+3x) + (a+2x)(a-3x) =$$

$$2(3x+2)(4x-3) - (3x-2)(4x+3) =$$

$$3n-2(2n-7) = 3(n-2)$$

$$4(t-3) + 3(2t+5) = 33(4-t)$$

Division:

$$9mn \overline{) 18m^2n - 27mn^3}$$

$$a+3 \overline{) a^2+11a+24}$$

$$2x-\frac{1}{2} \overline{) 6x^2-\frac{5}{6}x-\frac{1}{6}}$$

$$11a^2b \overline{) -44a^2b+55a^3b}$$

$$-9m^2-16+m^4-24m \div 3m+m^2+4$$

$$\frac{1}{3a} + 3 \overline{) \frac{1}{6a^2} + \frac{13a}{6} + 6}$$

Individual diagnosis was obtained from the horizontal rows and from a more complete examination of the pupils' papers. Mistakes made by a pupil in material of which the class shows mastery are personal problems. Such mistakes are due to individual shortcomings and can be remedied only by attentive effort on the part of the individual. For this purpose the drill cards were devised which emphasized the particular type of problem material which the pupil needed.

Pupils whose papers showed a sufficient knowledge of the subject to be excused from further work utilized the class period to do work in advance or joined any group of pupils working out their

common difficulties. All pupils working in advance of the class were required to take all tests and maintain a high standard at all times or they were required to take remedial drill with the remainder of the class. One pupil working in this way completed the second semester's work in three weeks, while another did it in five weeks. The first pupil then took up third-semester algebra by herself and had practically completed it at the close of school. The second pupil took up the study of plane geometry and was doing very good work when school closed.

Slower pupils are given all possible aid by this method. They are shown just what they know and just what they must work on. In this way they are able to concentrate on a specific problem. The teacher is available whenever necessary for consultation, and plenty of incentive for strenuous effort is provided by having one's progress charted for public inspection.

Having taught the course through using diagnostic testing and remedial teaching is of itself no positive assurance that the work has been well done. The best way to tell whether the work is satisfactory is to test it with a measuring device of known value. This is one function of the standardized tests as we now have them. For this purpose the Douglass Standard Algebra Tests were used. The results are presented in Table II.

TABLE II

Test	Class Score	Standard Score
1.....	21.25	16.2
2.....	23.75	24.0
3.....	17.15	16.4
4.....	22.22	20.9

CONCLUSIONS

1. "Home-made" examinations can be made diagnostic and valuable to both pupils and teachers.
2. Tests must be diagnostic of both class and individual weaknesses if they are to be of value as teaching aids.
3. Pupils of more than average ability respond to this method because it gives them an opportunity for progress not afforded by ordinary methods.

WHAT TO DO WITH THE HIGH-SCHOOL ASSEMBLY

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In order to determine the present practices in the high schools of Kansas with reference to the use of the assembly questionnaires were sent to 148 schools, including all schools in the first- and second-class cities and the county high schools. Replies were received from 112 schools. Sixty-six per cent of the high schools in the first-class cities, 79 per cent of the high schools in the second-class cities, and 50 per cent of the county high schools sent in reports.

The questionnaire covered the following points:

1. (a) Number of assemblies, (b) time of day, (c) length of assembly period.
2. Methods of arranging programs and general apportionment of time.
3. The practice in regard to devotional exercises.
4. Suggestions of programs for assemblies "different" and unique.

1. Table I summarizes the replies concerning the number of assemblies per week. Fifty schools reported their assembly period

TABLE I

Number of Assemblies per week	Schools in First-Class Cities	Schools in Second- Class Cities	County High Schools	Total
1.....	12	34	5	51
2.....	4	26	3	33
3.....	2	4	2	8
5.....	0	9	2	11

in the morning, and eleven reported it in the afternoon. The length of the assembly periods is shown in Table II. The median length is thirty minutes, and the average is thirty-four minutes. This statement of the central tendency is, however, not enough. A careful analysis of the reports shows that the general practice is to have a longer assembly period where there is only one per week. Tabu-

lations were made to determine the average number of minutes per week given to assemblies. The schools in the first-class cities average 57 minutes per week; the schools in the second-class cities, 58 minutes; and the county high schools, 62.5 minutes. All high

TABLE II

Length of Assembly Period in Minutes	Number of Schools
20.....	12
25.....	7
30.....	39
35.....	6
40.....	15
45.....	11
60.....	9

schools average 58.5 minutes per week. The distribution in Table III shows the number of minutes per week given to assemblies.

TABLE III

Number of Minutes per Week Given to Assembly	Number of Schools
30.....	14
31-40.....	19
41-50.....	18
51-60.....	26
61-70.....	1
71-80.....	2
81-90.....	8
91-100.....	6
150.....	2
180.....	1

Nine schools have sixty-minute assemblies; of these nine schools, eight have only one assembly per week, while the ninth has three assemblies per week with the highest total number of minutes.

2. Of ninety-five principals, fifty-three arrange their own assembly programs. Of the remaining forty-two, almost one-half of them serve as chairmen of faculty committees which arrange all programs. In a few instances the student body is represented on these committees. In eleven cases the members of the faculty in turn arrange weekly programs. In 20 per cent of the cases, classes, supervised by class sponsors, are responsible for some programs. The Hi-Y, the Y.W., orchestra, band, dramatic department, debate,

English department, history department, and various clubs are mentioned in a few reports as being used for special programs. The replies concerning the general apportionment of time were so incomplete as to make that part of the report practically worthless.

3. Twenty-three high schools report that they have no religious services, one principal stating that the Board of Education ordered them discontinued; thirty-four schools have one devotional service a week; nineteen have more than one per week, and sixteen have them only occasionally. In the sixty-nine schools that have devotional exercises the principal is the leader in thirty-one cases, faculty members in ten, and city pastors in twenty-one. In three schools students lead occasionally. In most of the sixty-nine schools the devotional exercises consist of a song, Scripture reading, and the Lord's Prayer, or even less. In nine cases a full assembly period is given regularly to devotional exercises. The average time given to devotional exercises is 12.5 minutes. The average time per week spent on devotional exercises by high schools having them regularly is thirteen minutes. Considering all high schools replying to the questionnaire, the average time per week spent in religious activities in assembly is 9.5 minutes. A few schools report that they give the Catholics and the Protestants equal time in the devotional exercises, while some state that time is given only to Protestant ministers.

4. The most valuable results obtained from the questionnaire were in the suggested programs for assemblies. The general forms will not be listed. These include outside speakers, orchestra programs, class programs, talks by principals and superintendents, etc. The following practices and suggestions may be interesting and possibly valuable to principals who have difficulty providing programs.

Burlington Senior High School, Principal M. R. Gray.—"A debate was held on the question 'Resolved that the ——— High School Will Defeat Burlington in Football.' The affirmative argument was planned to be very humorous, aided by grotesque costuming. The negative argument was three serious 'pep' talks by the captain, coach, and principal. Three long-haired, bespectacled 'college professors' acting as judges rendered a unanimous decision in favor of the negative."

Crawford County High School, Principal J. C. Straley.—A practical demonstration of Boy Scout work by the scouts.

Dickinson County High School, Principal O. O. Smith.—Presented an Edgar A. Guest program. This suggests any number of programs that may be given. Several schools stated that they gave Lincoln and Washington programs.

Florence High School, Principal W. E. Jones.—Latin department presented a Latin play. Also suggests "Mock Faculty." The general opinion in regard to a mock faculty seems to be that it should be well censored by some responsible faculty member, and even then it may leave a few sore spots. On the other hand, it is an excellent mirror for those who will see.

Girard High School, Principal Jane Townsend.—For variety in presenting a miscellaneous program a Chautauqua tryout was held. The members making up the program appeared before a talent committee.

Hays High School, Principal Maude McMIndes.—Hays has an Assembly Activity Class, meeting thirty minutes each week under the sponsorship of a faculty member who is appointed by the principal. It is divided into six sections, and each section arranges one assembly every six weeks. As a rule, they arrange programs given by the students. One interesting feature was a "radio" program in which the students presenting the program were out of sight and therefore suffered no stage fright.

Holton High School, Principal F. L. Parrish.—Each of the organizations puts on a program. The following organizations were listed: Hi-Y, Y.W., French Club, Latin Club, Dramatic Club, Debate, Treble Clef, Orchestra, Glee Club, and the three or four classes.

Larned Senior High School, Principal M. O. Brown.—For a football "pep" assembly they had a small boy dressed as a clown. He was Dr. Pep and injected "parapep" into each player. The players in turn got up and made speeches.

Lawrence Junior High School, Principal J. R. Barnes.—This school put on a crowning for the "Spirit of Junior High." Athletics, scholarship, music, dramatics, loyalty, "pep," and hard work (a gloomy looking figure) all took part. Each one was dressed in a costume to fit the part. This is a very good program to secure unification in the junior high school groups.

Neodesha High School, Principal Evan E. Evans.—The Wednesday assemblies are given to visual education, three reels of pictures being shown. Such films as show the refining of sugar, the making of glass, the making of candy, etc., are used. About twelve of the Friday assemblies are taken charge of by the Dramatic Department. At this time one-act plays and readings are presented. Six or seven special "pep" meetings and about eight musical programs are given on Fridays during the year. Members of the faculty and outside speakers are called in to fill out the rest of the time.

Newton Senior High School, Principal W. T. Crosswhite.—This school has a receiving set with a loud speaker. This is used frequently from 1:15 to 1:50 P.M. for assembly programs.

Salina High School, Principal W. Van Slyck.—"The best meeting we have had was when the women members of the faculty represented members of the football squad in the usual 'pep' meeting."

Topeka Senior High School, Principal R. R. Cook.—The Topeka Senior High School has a religious service once a month. The girls' chorus forms a choir, and they sing both processional and recessional hymns. Printed "Order of Service" slips are handed to the students as they go in. Local pastors give the addresses.

Stanton County High School, Principal Gertrude Beauchamp.—Days when athletic banquets are to be served the domestic science teacher has charge. She gives the menu and complete instructions on the etiquette of the evening. The results have been to eliminate embarrassment at the banquets.

Winfield High School, Principal W. W. McConnell.—Senior high school assembly, Monday and Wednesday; junior high school assembly, Tuesday and Thursday; Friday, entire student body. There is a lecture course of five numbers, and the students are charged twenty-five cents for the series. Each of three literary societies puts on five programs as follows: one original, one informational, one inspirational, one recreational, and one of their own choosing. The "Pep Chapels" are in charge of the "Howling Hundred."

PUBLIC SPEAKING IN THE HIGH SCHOOL

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It has long been conceded that English is a necessary part of every high-school curriculum. Most state and local courses of study require three years and some demand four years of work in English before the diploma of graduation is granted. Much has been said concerning the proper proportions of composition, rhetoric, and classics that should be included in these four years of work. Lengthy papers have been written as to whether formal English grammar should be taught in the third and fourth years of the high school, but until recently very little has been said about the "spoken word" in the curriculum. We glibly quote that "education is not preparation for life but is life"; educators say that we must make our high-school courses "more practical," and still we go on cramming education into the high-school pupil but pay very little attention to how that education is going to *come out*.

What is more of an asset to the lawyer than to be able to plead his case effectively? How much business will the salesman get who does not have the ability to explain his wares and combat the opposing arguments? How high in the commercial world will a business man climb who cannot convince his associates that his methods are better? How far will a person get in the teaching profession who cannot stand before his class and explain in clear, concise English the new material in the lesson? What man or woman is there who has not felt the need of being able to speak good English as well as to write good English? Not merely is this need felt in talking as one person to another, but there often comes the desire to express one's sentiments before a group of persons. If one does not need public speaking in one's vocation, one would frequently give a great deal to "feel at home" on the floor of one's lodge or club.

Formerly, a large percentage of the good positions were filled by letters of application, but in this age of rapid transportation and the telephone, the applicant is apt to be judged more by his ability to speak than by his ability to write. The personal application is the one that wins today because it combines general appearance with linguistic ability.

If we admit that public speaking is a "practical" subject and should be included in the high-school course, we shall still meet with the argument that we are now trying to teach too much in the schools and the introduction of training in speaking would only be adding another frill. The answer to this objection is found in a study of comparative values. Let us ask, What proportion of the words used by a given individual on a given day were spoken and what proportion were written? Undoubtedly, the percentage will be found to be in favor of the spoken words. If this is true, is it not also true that the high-school English courses should be so arranged that in three years a pupil gets some language foundation, written composition, and study of classics and that he devotes *one* year (preferably the last) to the study of speaking the language he has learned to read and write?

In choosing an instructor for the public speaking classes, we naturally say that the English teacher should be prepared to teach public speaking. There is a grave danger here, for frequently the English teacher attempts to teach "oral English," as she calls it, and is immediately disliked by all of her pupils. She decides to take one day a week for oral work and makes assignments from *Current Events* or the *Literary Digest*; on that day the pupils stand before the class and tell what they have read in the magazine. Sometimes the articles are memorized; again only the interesting parts are told, but *never* does the pupil have a chance to present something to the class that is the product of his own thinking. The English teacher should be prepared to teach public speaking, but she must know the difference between methods of attack in this subject and those in the customary English instruction. In the large school system a special teacher of public speaking could be employed, but in the smaller system the English teacher should be especially prepared to teach this subject.

Before making any suggestions as to what should be taught in this course and how to teach it, it will be well for us to have some definite idea with regard to what we are going to try to accomplish in the year's work. Our aim is, not to make statesmen or actors of the pupils, but to prepare them so that they can "think on their feet" and can speak clearly, accurately, and forcefully before any group of individuals.

With this aim constantly before us, let us consider some of the things that should be taught in a one-year course in public speaking in a four-year high school.

One of the very first things that should be explained and emphasized is the mechanics of speech; under this should be included proper breathing, position, and gestures. This suggested course is not to follow the old Delsarte idea, but there are a few essentials that should be known to the beginner, and the sooner he masters them so that no further attention to them is needed the better, and the more rapidly will he become proficient in the art of speaking. Exercises in diaphragmatic breathing should be given the first week as well as an explanation of why diaphragmatic breathing is the proper form. Breathing should be emphasized until the pupils have formed the habit of proper breathing; then, only when the occasion demands need the teacher call attention to improper breathing in the classroom. The necessity of correct position and carriage of the body should be explained, and the matter of gestures should be taken up. The pupil invariably will say "What shall I do with my hands?" The beginner should be made to understand that too many gestures are to be avoided and that no gestures are to be used unless the speaker really feels them himself.

A good standing position, showing proper position of feet, trunk, and shoulders, should be demonstrated before the class by instructor and pupils. After the correct positions have been illustrated and explained, the instructor should require all to assume proper positions when standing before the class; if this is emphasized from the first, the pupils will soon learn to assume the correct position unconsciously.

A good way to get the beginner accustomed to standing before the class is to give him something to memorize. Well-chosen

"memory gems" are an asset to anyone's store of knowledge and may be used very effectively to assist the pupil to "feel at home" on the platform. These "gems" should not be longer than forty or fifty lines of verse and should be chosen from material that is interesting as well as pithy. Voss' "House by the Side of the Road" or Kipling's "L'Envoi" are good examples. The general rules for memorizing should be explained, and the pupils should be urged to apply them in learning the selections assigned. These rules, fully explained, can be found in Freeman's *How Children Learn*¹ and are, briefly, as follows:

1. "Get the meaning clearly in mind." Read the entire selection *first* and understand what you are trying to memorize.
2. "Make as many repetitions as are necessary to fix the arbitrary associations." Don't try to do all the memorizing the first time the selection is read.
3. "Continue the repetitions beyond the threshold." Repetitions should not stop as soon as a pupil can repeat the selection correctly *the first time*.
4. "Distribute the repetitions." In order to recall the selection with but little difficulty at some future date, some time should elapse between repetitions.

A good way to get the pupils to see the advantage of these rules is to assign the class some simple selection to memorize during class time according to the rules and keep account of the length of time required by the various members of the class to memorize the selection.

While the rudiments are being mastered, it is well to have the class study short speeches one or two days a week. These speeches should be interesting and should have been delivered by persons with whom the members of the class have become acquainted through the study of history or current events. The speeches should also be ones that are easily outlined. After the elements of a good short speech have been explained, the instructor should outline one of the simple examples studied. Outlines made by the pupils should follow. The next step, of course, is to have the pupil

¹ Frank N. Freeman, *How Children Learn*, pp. 193-95. Boston: Houghton Mifflin Co., 1917.

reproduce the speech from his outline. The instructor should make sure that the talk has not been memorized by checking up on the wording and phraseology. After the second or third attempt of this kind by each member of the class, criticisms should be offered by the pupils and instructor. It should be explained to the class that in criticizing a talk made by a fellow pupil the good points in the talk should be pointed out as well as the bad ones. If properly guided by the instructor, the criticisms can be given almost entirely by the members of the class. Careful supervision of the criticisms should be exercised by the instructor, and any attempt at ridicule or any tendency to exhibit petty jealousies should be stopped immediately. After each pupil has given five or six talks the outline should not be brought to class unless the teacher wishes to refer to it while the talk is being given. The pupils should be encouraged to continue making outlines for all talks, but the outline should now be so well in mind that reference to it during the talks will not be necessary.

After a few weeks of giving and listening to short talks, the pupil should be able to stand correctly, breathe correctly, and give a talk lasting from seven to ten minutes without having to refer to an outline. Longer talks should follow the short ones. When the longer talks are assigned the pupils will ask "What shall I talk about?" If the instructor assigns the topics, the pupils will ask, "Where shall I find something about that subject?" The pupils should be encouraged to talk about articles they have read in the daily papers or magazines and to give their opinions concerning them. School problems may be discussed, and frequently some knotty problems of discipline may be worked out satisfactorily by members of the class and presented during the class session.

When the pupils have gained some proficiency in the presentation of the longer talks, permission of the principal should be sought to have some of the better speeches delivered before the student body at assemblies. These talks should be on topics that will immediately appeal to the students as a whole; often properly directed talks by members of the class may be used to influence the action of the entire student body. This influence, if properly guided, may be a great aid to the principal in controlling his school.

During the work on the longer speeches, variety may be added to the regular class work by introducing phonographic reproductions of some good addresses delivered by well-known speakers. Comparison of enunciation and pronunciation can be made in this way.

The work described should be sufficient to cover the first semester. By the end of the semester the pupil should have gained enough confidence in himself so that he can properly outline, prepare, and deliver a talk on almost any subject that would be suitable for any audience which he may want to address.

The pupils should now be ready to take up argumentation. Simple debatable topics should be suggested by the instructor and the pupils directed to prepare arguments favoring one side. After about a week of this the brief should be introduced; the instructor should explain fully the difference between the brief and an outline such as the class has been using for talks. A satisfactory way of presenting the brief is to choose an easy topic and have the members of the class suggest arguments while the instructor writes the brief on the blackboard. Practice in brief writing by the pupils should follow.

After the brief is understood, the rules applying to debating should be explained. This is an excellent time for the class to visit the courtroom if possible. Soon members of the class can be arranged into teams, and simple debates may be given before the class; the members of the class not participating in the debate may be critics, chairman, judges, etc.

It may be well to introduce during this semester, one day every week or every other week, extemporaneous talks and after-dinner speeches. This will give the members of the class good practice and will afford some amusement for all. At first, it will be well to assign the general topic the day before the talks are to be given, so that the pupils will have an opportunity to be partially prepared. Later, topics may be written on pieces of paper by each member of the class and handed to the instructor. The papers are then distributed, and each person is supposed to talk on the topic that has been handed to him. If he is unable to do so, the person who suggested the topic must talk on the subject. This will add much interest to the recitation and will cause the class to become more

alert, to gain information that they might not otherwise try to get, and to take more interest in the work of the class.

During the third quarter dramatics may be introduced. The purpose of this is not to produce actors nor to develop the aspirations of stage-struck boys and girls; but it should develop stage presence for the speaker, enable him to appreciate the good things in real acting, and suggest a means of helping him to amuse himself during idle moments. The instructor should explain the names of the various parts of the theater, visiting a fully equipped stage (or the school auditorium) when possible. The difference between acting and the kind of talking they have been doing should be pointed out. There are now three persons or groups of persons to be considered: the speaker, his audience, and the other actors. In delivering an address the speaker is presenting his own facts in a natural surrounding; in acting he is *not himself*, and he is presenting the ideas of another in an artificial situation. Character delineation should be tried by all of the pupils in the class, using for assignments some of Shakespeare's works with which the class is already familiar. At first, the various pupils should be assigned characters that are similar to themselves, but later they should attempt to portray opposites. This is the best way of forgetting one's self and will afford rest as well as amusement during later years. Near the end of the school year, a group of one-act plays could be presented by the members of the class. This is much more beneficial to the class as a whole than to try to present one long play. The short one-act plays give several people a chance to portray important parts, and no one has a long part to learn. Each play may be rehearsed separately, and more variety is added to the program. Three or four short one-act plays should take up an entire evening. The entertainment can be given gratis for the public, or a small fee may be charged to defray expenses of presenting, or the performance may be given for the benefit of some fund.

The instructor should remember that the entire year's course is to be practical and that all things done or explained during the year are to be used by the pupil himself or passed on to someone else. If this course is conducted properly, it can be made one of the most beneficial as well as one of the most popular courses in the high-school curriculum.

COMMENTS ON CURRENT EDUCATIONAL PRACTICES IN EUROPE

P. H. PEARSON

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National school systems with the changes they are now undergoing are the outcomes of past struggles and deliberations; they are of the texture and fiber of a particular country. For that reason students of foreign school systems concede without question that a measure in successful operation in one country may not necessarily yield the same happy results if ingrafted on the system of another country.

There are, however, advantages to be gained by studying the practices of other peoples. Such a study broadens one's horizon and overcomes to some extent the tendency toward provincialism. It is with a view to extending the thinking of American readers that the author has brought together a brief statement of some of the conspicuous happenings in European school systems.

Sweden is building up a system of continuation and crafts schools to hold parallel rank with her academic secondary schools. These practical institutions will be in operation by 1924. They will provide 360 hours of schooling which must be taken by the pupil between the ages of fourteen and eighteen. They will be in session from six to twelve hours a week during eight or nine months of the year. A major subject of regional interest and importance will form the nucleus about which general or related subjects will be grouped. Aside from their practical purpose, these schools are the expression of a social purpose still more important, namely, that of setting up practical, commercial, and technical *gymnasias* which are to hold rank and prestige equal with the *gymnasias* of the academic traditions.

Norway has shown what ought to be done when discussions of school problems tend to become interminable, reform efforts end

in voluminous reports of school commissions, and decades pass without accomplishing anything. Norway has decided that only those middle schools which carry pupils on from the folk schools will receive state subvention. This means that the Storting approves the principle that the folk school is the common school for all children. It is a triumph for the folk-school idea and the principle of the unit school system. It is the most important school enactment in Norway since 1896. The Storting's decision will have a marked effect on the training of teachers, tending to lengthen the courses for prospective teachers from three to four years, for a folk school preparing for all forms of secondary education will impose greater requirements on its teachers.

Denmark trusts her educators. She extends help to a school and, so far as possible, keeps her hands off the school. In this way she makes the fullest use of private initiative, thus conforming to an idea launched by Grundtvig in the middle of the last century and embodied in the people's high schools, a type unique among the schools of the world. The confidence reposed in her institutions of learning has been amply justified if one may judge by results. Her schools have made Denmark a nation united in national aims and, it may be added, economically prosperous. Here is a case where inspirational instruction, sentiment, and songs, coupled with information, have given economic returns. The people's high schools are an expression of the strong desire among the Danish people to arrange their school matters within the framework of the nation's laws without the detailed ordering of a central department.

The idea of schools for gifted pupils as established in Berlin in 1917 is spreading to other countries. In Belgium it has been embodied in a recent enactment. In each province is to be created a fund for the *mieux doues* to which the communities, provinces, and the state contribute. The levy is such that a city of 40,000 inhabitants will by 1927 have a fund of at least 28,000 francs. Assistance in education is to be given to all gifted children who need it. Included in the category of gifted are, not only pupils with fine records in school subjects, but those pupils with good powers of observation, energy, resourcefulness, character, and will-power. The committee controlling disbursements must include at least

one physician and several specialists of the teaching profession. This committee may institute an examination to test the pupils' intelligence. In cases where testing shall be judged expedient special rating is to be given to attention, judgment, will-power, and special gifts. Aid is granted pupils for tuition, books, and maintenance. The pupil may, through his progress at school, even secure a bonus for his parents. City and country are favored equally with respect to advantages from these funds.

The principle of continuity in educational work is prominent in the school system of Switzerland. There is a period of preschool care in which the home and the kindergarten are in close and informal touch. Then comes the elementary school proper, but at its completion there is no abrupt dropping of the pupil on commencement day. The schools of Switzerland have adapted themselves to the fact that the school period and the wage-earning period of boys and girls overlap; hence there is a period of both study and wage-earning labor. The school board of Zurich directs that a vocational textbook shall be studied in the final elementary classes and in the first two secondary classes. Every teacher instructing final or graduating classes is furnished with a list of available positions as well as a list of places in the city where practice in the trades can be secured. Industrial establishments have also organized pupil-placement boards.

Holland encourages private educational endeavors and aids these by liberal grants. The question of how to apportion maintenance allowance between public and private institutions has, in Holland, been settled greatly in favor of the private institutions. In order to prevent salary discriminations the state pays the salaries of all teachers, private and public, and forbids communities or private interests making additions to them.

An unusual age limit has been set as an entrance condition to teachers' training institutions in Holland, namely, the period between the ages of fourteen and sixteen. As a result, admission opportunities come only twice in a life-time. There are, however, exceptional inducements to prepare for the teaching profession. Almost everything is furnished free—tuition, books, instruction material, and an allowance for living expenses during the four years

of the school period. Among the qualifications required of prospective teachers Holland has exactions not recognized elsewhere. Physical fitness is of major importance. It is held that the persons to whom growing children must constantly listen should have pleasing voices and those whom these children must constantly see should be handsome in appearance.

The teaching practices of the labor schools are receiving very general consideration throughout the European school world. The labor school is a reaction against book methods and verbalism; it cultivates the active attitude as contrasted with the passive attitude often imposed on pupils in the traditional school. The labor school shapes the lessons with a view to the pupil's initiative in thought, speech, writing, and action. The child develops, not from play to books and print, but from play to work; hence the labor school provides exercises in making things, in the manipulation of crude material, and in activities which eventually result in interest in pictures, print, and books. In the advanced classes of the folk school and in the special classes where industrial training is given beyond the folk school, stress is laid on the wholeness of a project as opposed to lesson fragments, permitting the pupils to follow a single large project from its beginning to its result. Several pupils may work on the same project, share responsibility, and render each other mutual help, as in the community undertakings which will have to be taken up when school days are past. George Kerschensteiner of Munich is the most noted exponent of labor school methods and organizations. Other noted representatives of the idea are Erler of Leipzig, Decroley of Belgium, Arvin of Denmark, and Sjöholm of Sweden.

For many years past courses in home and community work have been given in a scattered way in several European countries. Sweden has recently organized this branch of study and given it a place in the folk-school programs co-ordinate with the three R's. The teacher is required to study the locality of his school and shape its concerns into lessons to be studied by the pupils through out-of-door observation, drawing, and work exercises. The home, the school, and the village are in this way held together in a unified way. The study expands in the upper classes, where it becomes research in

local history and local resources. The school lists the special things that a community has and compiles the community history. Publishers are aiding by publishing regional descriptive texts and maps. In Finland the government is helping by securing local records from towns and villages and making these accessible in the library at Helsingfors.

In the teachers' training colleges of Finland the courses are examined every third year with a view to their revision. On the basis of these periodic examinations proposals for new subject-matter, new study plans, and textbooks are submitted to the Central Education Board not later than May 1. Two purposes are kept constantly in mind, namely, unity among the teachers' colleges and the avoidance of stereotyped teaching procedures. The revisions of the teacher-training courses touch other schools with rejuvenating impulses. As a Finnish educator put it, they help to rid all schools of dead subject-matter, dead methods, and unprogressive teachers.

The drama is used for educational purposes in Hungary. The national love for dramatic literature has caused the drama and the theater to be used as important educational agencies. A writer who signs himself A. L. D. says in an article on education, "The opera house and the national theaters of the capital as well as those of the principal towns are under the control of the Minister of Public Instruction, who fixes the pay and supervises enrolments and retiring allowances of actors and actresses. Actors are thus placed on the footing of civil servants." Theaters are subsidized by the government. The Budapest Theater is a municipal enterprise founded and maintained for the educational uplift it may impart to the people. The Peoples Opera was founded and subsidized for the same purpose. The writer mentioned says that "state recognition secured for the Hungarian stage a respectability not always associated with it in other countries." Teachers and pupils make use of the opportunities the theater offers; they go to the opera and the theater for the purpose of acquiring knowledge in the same way as they go to school.

The new school regulations of Prussia give what appears to be extreme freedom to the elementary teacher—freedom to strike out on new lines or stick to the old ones or to go fast or slow as his

individual judgment dictates. The course of study for the first year (in some German states the first two years) schedules only one subject of instruction. Practically, this is equivalent to the direction, "No fixed hour schedule is prescribed." The teacher draws up his own plan by simply indicating when the recitation periods begin, without specifying what he is to teach. The length of the period depends on the progress it is felt to be necessary to make, the inclination of the children, or the instruction material available for the exercises.

Distinctions and awards play an important rôle in the school practices of France. "When you visit a higher school in France," says Marguerite Clement, "the first thing you see in the very middle of the room is a bulletin board with a list of the pupils who have distinguished themselves in mathematics, French, composition or modern languages." Impressive festivities with banners and music come at the end of the school year when distinctions and awards are distributed to the deserving ones. The schools have at their disposal a considerable sum of money with which bank books with deposits of fifty, thirty, or twenty francs are purchased and donated to meritorious pupils. Parents feel greatly disappointed if their children get nothing whatever during the general rejoicing. A pupil does not wish to lag behind in his work during the year or have notations entered against him, cutting him off from the awards.

In carrying out the plans for such awards the schools have organized a series of examinations. These are regarded in some cases as too strenuous, and parents have protested against them. In response to the protests of the parents the authorities have recognized the need of lessening the strain and stress of these examinations and have reduced the length somewhat.

Comments on examinations are heard in many quarters. Professor Larsson of Lund holds it quite unnecessary to require maturity examinations in all subjects of the *gymnasium* finals. M. Auguste Lalive of Geneva would rule out all examinations in the elementary schools. The Easter examinations, he maintains, are an ordeal which for a long time prior to the event itself keeps the pupil in a state of unhealthy apprehension. M. Lalive hopes to sweep away, not only all that remains of the term examinations, but also the finish-

ing examination, the baccalaureate. Informal reviews with a record of attainment evaluating the powers of observation and reflection would, in his opinion, be better. The examiners at the girls' lycées in France find that they can best ascertain a girl's class rank through a friendly and leisurely conversation. Benedetto Croce, Minister of Education in Italy, objects to periodical examinations. If the whole course, says Minister Croce, is mapped out with a view to preparing pupils to answer academic questions, you have fashioned a mold in which a young mind will stiffen and lose the power to grow. An examination conducted by the teacher himself to test his method serves a useful purpose and does not call for mere feats of memory. To these views might be added the fact that the people's high schools of Denmark have no examinations whatever, and yet it is pretty well established that pupils get more from their courses in Denmark than they do for the same length of time in any other schools in Europe.

TRAINING FOR POWER

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The student who can master the daily assignment but who cannot, in review, co-ordinate the work of a semester, or half-semester, into a unified structure, is perennial among the problems of the teacher. "I understand the work from day to day," he complains, "but I am helpless in examinations." The sympathetic, perhaps sentimental, explanation that he is congenitally nervous in the presence of a critical ordeal and that he would produce better results on a written test if only he had a temperament adapted to written tests, has the virtue of leaving the student with a certain superficial solace; but it does not attack the heart of the difficulty. Is it overstating the case to say that the student—certainly the student of college rank—who quakes before the final scholastic reckoning is handicapped not so much by any pernicious or aberrant twist in temperament as by sheer lack of intellectual power?

The question, however, is not associated exclusively with written examinations. Conscientious, alert teachers face it every week. The student who knows that the English Parliament and the Crown bore a certain relation to each other in the fourteenth century and a certain different relation in the fifteenth century but who cannot infer from the two facts, in conjunction with other corresponding facts, that a plain tendency marks the growth of Parliament is, after all, the very student who exclaims, after the final examination, in a "post-mortem" comparison of notes with his fellow-students, that "the class was never asked those questions in a regular quiz period." From the student's restricted point of view, there is something like justice in his resentment. What he fails to understand, however, is this: that any well-drafted examination should be a challenge to the students to display their capacity in the organizing of materials, in the marshaling of a formidable mass of data into

orderly array, in converting a pile into a file. An adequate examination in any branch should, in a word, be an intelligence test, a test of mental power.

Training for power is, indeed, a venerable educational gospel. The stern, old-fashioned curricular offering of Greek, Latin, and mathematics was not always, as it is sometimes supposed to have been, a mere expedient in preparation for passive scholastic careers. Those educators of the old school who were not pedants believed in that diet mainly because it stiffened the intellectual sinews and in the best sense prepared for life. The latter-day predilection for highly specialized training, for immediacy of result in a field characterized by special manual or mental technique, seemed, a few years ago, to be menacing the ancient faith in training for power; but the orthodox cause, though it seemed asleep, had by no means perished. Right-minded teachers have not only survived the onslaught of the specializing phase; they have, in fact, been baptized in fire and have come out clarified and insistent, satisfied more intensely than ever before that the essential function in education is to equip the whole boy or girl and not a fragmentary segment labeled with a professional or occupational destination. A thoughtful Freshman at one of the great middle-western universities, after remarking to the writer of this article only a short time ago that the aims in Freshman English and in Freshman history are not, after all, widely different from those in Freshman mathematics, proceeded to declare his intelligent approval. That youth has already discerned the vital thing in his own educational program. His eager mind is lending itself, with energy and hospitality, to the ministrations of teachers who know that sound pedagogic methods will leave their influence long after course-contents have vanished.

There is no disposition here to magnify the virtue of power over that of information. It is not, indeed, clear that they are separable, even for the elastic purpose of academic discussion. Information has been said to be the handmaid of power; and it is, no doubt, if one happens to care for anthropomorphic analogy, a fairly rational metaphor. In one dictum, however, all teachers, whatever their specialty, should concur: that no teacher can afford to belittle the importance of method, even of method *per se*.

The point needs some elucidation. It probably occurs to almost everyone, in looking back on his own college years, that some of his teachers seemed to dispense their courses in unrelated stages, in successive chaotic doses curiously compounded of facts and items, of names and personalities. Unhappily, there are still teachers, though few, who teach with little or no feeling for what may be called curricular unity. Someone has said that a single recitation should be so conducted that the students derive, from the instructor's process, the same impression that they derive from a more tangible work of art. A recitation should, in other words, be an organic unit, with beginning, middle, and end; with an object clearly designed and the identical object clearly achieved. A whole semester's work should, in like manner, have its central idea, with daily methods and weekly programs incessantly contributing and reinforcing. What is more, the instructor should sacrifice no opportunity to take his charges into his confidence, both imparting the information which comprises the stock in trade of the subject and expounding, nay recommending, the scheme on which he has conceived and developed the curricular schedule. There should, in other words, be no mystery, no sleight of hand, in pedagogic method. If a logical and invulnerable theory has guided the framers of the course, the exposition of the theory is a priceless elixir which no teacher has a right to withhold from the hungry minds of his students. The human soul loves system and symmetry of form; human sense craves harmony in design; human beings respond to self-consistent, purposeful artistry in any intellectual activity or enterprise, whether in the classroom or out of it.

To this contention the reply is made that not every subject is inherently adapted to such methodical treatment. In the teaching of history, or literature, or economics, or philosophy, or non-laboratory science, all subjects rich in text materials demanding categorical assortment, the instructor may, it is plain, suggest readily enough some scheme of classification to which the student's imagination may cling as the work progresses. What, however, shall be done, in the interests of method and to the end of enhanced power, in those branches wherein the primary concern is not so much the organization of unassimilated text-material as the application

of underlying, permanent principles to a riot of intellectual problems? What, in short, can unity in presentation accomplish in branches like mathematics and laboratory science and language? The answer is that in this wide field there resides, always, a potential invitation to the use of that centralized treatment which, in the other field, the teacher summons only by sporadic and collateral suggestion. It may, conceivably, not occur to the instructor in English literature to induce his students to arrange the literary specimens which they have read during a period of several months according to the continuous literary movements and tendencies manifest on a careful retrospective survey. In mathematics or language, on the other hand, controlling principles are at the student's elbow from first to last, and his success depends in large measure on his ability, endowed or acquired, to recognize the peculiar applicability of a principle (whether theorem, formula, or rule) to an instant case. The value of mathematics as an antecedent to the abstract and elusive science of law is, radically, this: that mathematical training, better than any other, enables the mind to reconcile and distinguish, to separate wheat from chaff, to discern the applicability of principles. The teacher of a legal subject customarily demands, when the student states or "briefs" a case, that he accompany the announcement of the legal proposition with a statement of the facts. The law student's outstanding object, therefore, if he is bent on acquiring the discipline which he will need in his profession, is to establish, in his own mind and in the minds of his instructor and fellow-students, a sound and logical basis for applying a rule to a set of circumstances.

Serious contemplation of the language problem suggests a similar comment. A prominent teacher of mathematics has recently said that years of observation convince him of the coincidence between proficiency in mathematics and proficiency in language study. The reason is obvious. Both of these fields postulate the application of principles to phenomena. The student who writes successful English themes is one whose mind, having retained rules of grammar and rhetoric and mechanical form, can apply them, judiciously and flexibly, to the business of rhetorical structure; the successful teacher of composition is one who, barring irrelevancies, can concentrate on any given exercise the student's acquaintance with rules and doctrines. There

is a real temptation, in the teaching of either a domestic or a foreign language, to borrow the machinery and terminology of natural science and to employ the phrase, "laboratory method"; to interrelate, and to make one's students interrelate, the peculiarities of various passing combinations with controlling laws. A competent teacher of French or German, if he is himself disciplined in the logical complexities of Latin syntax or in the trying mazes of Greek inflectional variation, enjoins his students to regard a page of the foreign text as a challenge, a challenge to their sureness and readiness in invoking rules of syntax and inflection and in applying them to the visible problem of converting multifarious verbal forms and syntactic constructions into coherent sense expressed in the native idiom. If he inclines with diligence, the student so directed may shortly perceive that, in the affairs of life, the basic intellectual problem is the finding of the right key for the right lock and that selection and application, analysis and synthesis, are indispensable and eternal processes.

A qualifying word is now necessary. Training for power is bought at a considerable price, a price measured in terms of the student's zeal and devotion and character. Methods and theories are valuable chiefly in proportion to the teacher's indefatigable insistence on the student's own use of them. Too many instructors are dispensers and demonstrators instead of masters of mental discipline. Method, if it is ultimately to prevail in the lives of students, should not descend on their heads like manna from the sky. The tissues of the mind, like those of the body, expand and harden with exercise. Good teachers are agreeing more and more that in the best teaching the class does most of the work.

Such is training for power. Fundamental in that type of training, there is, then, the perception of relations and relative values; the knowledge of what we call elementary principles is, in other words, simply a knowledge of the relations in which those principles stand to all of the nooks and angles, all of the outcroppings and ramifications, of the science in hand. When teachers, moreover, speak of strong students and weak students, they virtually imply only one essential distinction. By the strong student they mean that student who, they are assured, can himself discern and appreciate the true relations of the problem before him—and the problem may be one

in humanistic or natural science, or in history or language, no less than in mathematics—to a governing law of the subject, or to some theory of organization revealed or implied in the work of a curricular time-unit. By the weak student they mean that student who, with a memory, at best, for only isolated facts or concepts, fails to discover and appreciate those relations. If these are the strong and the weak students, who, then, is the efficient and sympathetic teacher? It is he who invariably relates the content of his course to what the student already knows and the parts or elements of his subject to some orderly plan identifiable in the mind, or the composite mind, of his specific group, insisting throughout on the cultivation by the student himself of hardy initiative and self-reliance in this paramount task of co-ordination. By the same token, it is he who illustrates in practice his belief in the doctrine that effective teaching is conditioned on contact with the student-mind; who realizes, therefore, that no integer of curricular work is, in a real sense, repeated when it is addressed to a new group of students. It is he, moreover, whose spirit never flags before the prospect of adjusting old methods to the new situation. To that type of teacher, training for power is a mission that lives, for he knows that power is the "pulse of the machine," and that power is wisdom.

Educational Writings

REVIEWS AND BOOK NOTES

A scientific basis for secondary education.—No one today would have the temerity to defend the thesis that current secondary-school practice rests on a scientific basis. Indeed, we are hardly conscious of the need for such a basis, but there are many signs pointing toward the early appearance of such a state of consciousness. While it is true that the great body of research which has been carried forward in the past two decades has centered in the field of elementary education, the attention of the investigator has been directed with increasing frequency to the problems of the high school. This growing interest in research on the secondary-school level is well represented in the last number* of the Supplementary Educational Monographs of the University of Chicago.

This monograph is the work of the staff of the University High School of the University of Chicago, nine of its members actually contributing to its composition. It is divided into six sections. In the first section Superintendent Morrison outlines the general plan and philosophy of the experimentation which is being carried on in the laboratory schools of the University of Chicago. In the other five divisions are reported actual experiments organized with a view to improving high-school procedure.

Mr. Morrison begins the monograph with an article on "The Major Lines of Experimentation in the Laboratory Schools." His central contention is that the great object of experimentation in these schools is that of promoting "economy in the process of general education." This is to be attained through work along four lines: first, the development of better and more economical material; second, the discovery of a better and more effective technique of teaching; third, the thorough and careful study of the individual student; and fourth, the development of a more effective institutional organization. Each of these lines of experimentation receives very brief treatment, except the last. To the discussion of this question Mr. Morrison gives a major portion of his space. He presents some most interesting facts growing out of an experiment which is now about ten years old. Many are familiar with the fact that the

* *Studies in Secondary Education. I.* University High School, University of Chicago. Supplementary Educational Monographs, No. 24. Chicago: Department of Education, University of Chicago, 1923. Pp. vi+150. \$1.50.

eighth grade was eliminated from the University Elementary School in the year 1913-14 when the children in both the seventh and the eighth grades were simultaneously promoted to the University High School. Through the subsequent records made by the members of these two classes in the University High School and in college, Mr. Morrison shows quite conclusively that those who skipped the eighth grade were as well prepared for the higher education as those who did not.

The second division, entitled "Constructive Student-Accounting in the Secondary School," is written by Mr. Reavis and Miss Smithies. The former shows how the maladjusted student is cared for in the University High School. The technique employed is the most satisfactory for a high school of moderate size that has come to the attention of the reviewer. Mr. Reavis demonstrates the immense value of carefully kept records, and he shows how they may be used effectively. Miss Smithies applies the case-history method to the administration of high-school girls. She takes the position that this detailed study of individuals, rather than the work of the social secretary, constitutes the genuine function of the dean of girls in a high school. In presenting three case histories she reveals her method and leaves little doubt in the mind of the reader that the work which she is doing is greatly needed in every high school.

Mr. Beauchamp reports the method and results of "A Preliminary Experimental Study of Technique in the Mastery of Subject-Matter in Elementary Physical Science." This is undoubtedly one of the best studies of the technique involved in the direction of the study of students that have been published. Indeed, it would be difficult to find its equal. By successively altering the procedure in a series of five experiments with two classes of practically equal ability, Mr. Beauchamp gives clear proof of the efficacy of certain types of study technique. He also secures some very interesting evidence bearing on the question of general discipline. He shows that students can be given a form of training that will serve them well in attacking thought questions. We need many more experiments of this character if we are to direct students in the acquisition of efficient habits and methods of study.

Mr. Hill and Mr. Barnard describe in some detail "A Two-Year Sequence in High-School History" which has been developed at the University High School. This sequence consists of a "Survey of Civilization," which is taught in the second year, and "A Course in Modern History," which is open to Juniors and Seniors. The former is designed to give historical and social perspective. It differs from a course in world history in that, while preserving a narrative thread, it places great emphasis on certain selected periods of history. The latter, beginning with the Industrial Revolution, apparently aims to give as thorough an understanding of modern times and the historical backgrounds of current issues and problems as high-school students are capable of grasping. As a two-year course in history, this program is of a high order, although the reviewer is not altogether convinced that the course in world history, if properly worked out, would not be superior to the "Survey of Civilization."

In "The Development of a Curriculum in Correlated Mathematics and a Discussion of Aims, Values, and Results," Mr. Breslich gives a singularly concise and lucid statement of the case for the reorganization of secondary-school mathematics. He also gives a brief historical survey of the movement with which he has been so closely associated and to which he has made many brilliant and enduring contributions. Of especial interest is the analysis of the results of the introduction of correlated mathematics in the University High School. It has maintained the registration in mathematics, has reduced failure, and has provided a type of mathematical training that gives a good account of itself in the later work of the college. But one wonders how much of this is due to the correlated mathematics and how much to the genius and personality of Mr. Breslich.

In the final division of the monograph Mr. Hanes and Miss McCoy report an experiment in the "Organization and Technique of a Teaching Unit in English Classics." The field chosen for the experiment is that of the essay and biography. It is frankly recognized by the writers that the first great object of instruction here is to develop genuine interest on the part of the students. This aim is too often sacrificed to some respected and sanctified convention that bears no relation to the genuine purposes of secondary education. From the report it seems that some success attended this effort at stimulating and developing interest in a field that the high-school student has long been taught to enter without hope and to leave without regret.

Little need be said in concluding this review. On the whole, the work of this monograph is well done. We are in dire need of much more of the same type. Let us hope that it is the first of a series of studies in secondary education, as the title suggests.

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A new history of education.—The history of education is being regarded from a new point of view. Educational theory and method are no longer considered as the principal subject-matter. It is now obvious that the whole subject must be rewritten—perhaps one should say written—in such a way as to reveal the relation of educational progress to general political, economic, and social conditions and to show how education in turn modifies the ever changing social structure. It is from this new point of view that Professor Reisner has written a history of modern education.¹ His purpose has been "to describe the major facts of the social, economic, and political life of France, Prussia, England, and the United States since about 1789, in close relationship with educational policy and practice" (pp. vii-viii). Nationalism, democracy, and the industrial revolution he regards as the major factors conditioning education during the period covered by his book.

¹ EDWARD H. REISNER, *Nationalism and Education since 1789*. New York: Macmillan Co., 1922. Pp. x+576.

As to form, the book is divided into four parts, a part being devoted to each of the following countries in the order named: France, Germany, England, and the United States. Considerably more attention is given to the United States than to any of the other countries. At the end of each chapter is a list of additional readings classified as follows: (1) general historical background, (2) source material on education, (3) secondary accounts. As to method of treatment, the author first describes the major social, economic, and political movements of the period under consideration and then discusses educational development in the light of these movements.

The book has certain defects. It is designed as a textbook and is subject, therefore, to the necessary limitations of that form of exposition. In his account of the broader social and political movements the author has relied chiefly on standard secondary works. Little, perhaps too little, attention has been given to the ideas and influence of educational reformers. A more serious omission is the relatively slight emphasis on educational practice and on the school from within. On the whole, however, Professor Reisner has performed well a difficult task. His book is the best text on the history of modern education which has appeared up to date.

I. N. EDWARDS

Progress by way of compromise.—In writing a textbook it is necessary to make so many concessions to established practices in teaching that the finished product seldom represents fairly the author's conception of what ought to be or reflects accurately the conditions which it is designed to fit. A recent text by Mr. Tanner¹ shows the effect of such concession through the introduction of considerable material on the forms of discourse and a section devoted largely to the formalized treatment of grammar (Part IV).

However, in comparison with a dozen other texts in composition which have appeared within the past three years, Mr. Tanner's book stands slightly above the average in the recognized tendency to diminish stress on the four forms of discourse and in the tendency to increase emphasis on matters of correctness. To be specific, the average textbook emphasis since 1919 on the forms of discourse may be represented by 23 per cent. Mr. Tanner's emphasis is 21 per cent. The average emphasis on correctness (functional grammar and mechanics) in the general textbooks on composition and rhetoric since 1919 may be represented by 22 per cent. Mr. Tanner's emphasis is 27 per cent.

In the perennial search for a satisfactory composition text, teachers will be interested in seeing Mr. Tanner's book. It is evidently the product of considerable experience and shows a genuine appreciation of many of the problems of composition teaching.

ROY IVAN JOHNSON

¹ WILLIAM M. TANNER, *Composition and Rhetoric*. Boston: Ginn & Co., 1922. Pp. xiv + 500 + xxxviii.

The Philadelphia survey.—Seldom does one have the pleasure of examining a study issuing from a state department that is so well done, on the whole, as the report¹ of the Philadelphia survey prepared under the general direction of the Pennsylvania State Department of Public Instruction. This report appears in four volumes, with a total of 1,354 pages, representing the combined labors through the school year 1920-21 of thirty members of the department staff and about twenty educational specialists not connected with the department, under the personal direction of Thomas E. Finegan, superintendent of public instruction.

Of the four volumes constituting the report, Book I deals with the evaluation of the existing school plant and outlines a building program; Book II is devoted to the general plan of organization and administration of the school system and the attendance, retention, and promotion of pupils; Book III contains chapters on types of schools, the training and promotion of teachers, and vocational education; Book IV deals with the problems of instruction.

"The most serious problem which the board faces is its building program," says the director of the survey in his discussion of outstanding features (Book I, p. 28). This view seems to justify the elaborate studies of the school-building situation which fill the first volume. The buildings of the city were systematically classified from the standpoint of floor-plans and evaluated in detail by the use of the Strayer-Engelhardt score-card. On the basis of these evaluations, pupil enrolment, population trend, and taxation data, a building program was outlined for the next twenty years, to cost \$84,010,972. Action already taken by the board of education indicates that this program will be adopted. Eleven investigators were assigned to buildings. This portion of the report must be read if its thoroughness and scientific method are to be appreciated.

The majority of the readers of the *School Review* will probably be more interested in those sections of the report dealing with the problem of secondary education, for which Professor Briggs of Columbia University is mainly responsible. To portray the situation in the field of secondary education in brief would be difficult. It was found that while Philadelphia has eleven secondary schools, it has no secondary-school system. One junior high school has been established, but no junior college. The impression is gathered that the principal obstacle in the way of the proper development of secondary education in the city of Philadelphia is the lack of provision for adequate supervision, and this is traceable to the fact that the superintendent is devoid of real power in this field, the principals being independently responsible to a committee of the board. Hence administrative practices, instructional procedures, and curricular offerings are inexcusably illogical and unco-ordinated.

A suggestive chapter (Book II, chapter ii) on retention and promotion of pupils clearly reveals a certain social blindness and undemocratic trend, not

¹ *Report of the Survey of the Public Schools of Philadelphia.* Book I, pp. 370. Book II, pp. 292. Book III, pp. 344. Book IV, pp. 348. Philadelphia: Public Education and Child Labor Association of Pennsylvania, 1922.

necessarily attributable to faulty supervision. "Elimination of the 'unfit' is looked upon as evidence of a high standard of high-school work rather than a shirking of responsibility for the secondary education of a majority of the pupils who enter high school" (pp. 244-45).

As might be expected, the chapters devoted to various high-school subjects and activities vary greatly in value. Instances are not lacking where the surveyor seems to have armed himself with excerpts from the report of the Commission on the Reorganization of Secondary Education, observed the work being done in a few classrooms, dispensed with the tedious superfluity of data systematically arrayed, and then offered a few general recommendations more harmless than helpful. The chapters on "Mathematics" and "Extra-curricular Activities" are not, however, of this dubious character. The latter chapter, fifty pages in length, is so suggestive that it should be read by every high-school principal.

The addenda to the chapters showing action taken as the result of survey recommendations, prior to the publication of the report, to remedy defects in the school system, give every assurance that the work of the survey staff will act powerfully for the improvement of the Philadelphia public schools. At this juncture the wisdom of the educational leaders in Philadelphia could not be better exhibited.

FREDERICK S. BREED

A short world-history.—To write the history of the world in a volume of four hundred and fifty pages is a task which might well cause any writer to hesitate before undertaking it. But, cheered by the success of his earlier effort in historical writing, *The Outline of History*, Mr. Wells undertook this fresh enterprise with all of his characteristic confidence and enthusiasm. The new volume,¹ according to the Preface, is "not an abstract or condensation" of *The Outline of History* but "a much more generalized history, planned and written afresh"—a claim scarcely substantiated by a critical comparison of the two works. The present volume, we are told, is intended "to meet the needs of the busy general reader . . . who wishes to refresh and repair his faded or fragmentary conceptions of the great adventure of mankind" (p. 5).

The success of a volume like this depends in large part on the author's style, his attitude toward the subject, his selection of material, and the manner in which he distributes the space at his disposal. Concerning the first of these, little need be said; there are few living authors who equal Mr. Wells in graphic and stirring portrayal—the book reads like a novel. Of the second, it is enough to remark that the author's attitude of omniscience concerning things past, present, and to come is fully sustained. To evaluate the two latter points, a survey of the content of the volume is necessary.

¹ H. G. WELLS, *A Short History of the World*. New York: Macmillan Co., 1922. Pp. xvi+456. \$4.00.

Mr. Wells begins his narrative with a discussion of the size, age, and origin of the earth. He then sketches the development of life from its beginnings, through the age of fishes, coal swamps, reptiles, mammals, monkeys, apes, and submen, terminating this portion of the volume with chapters on "The First True Men," "Primitive Thought," "The Beginnings of Civilization," and "Primitive Neolithic Civilizations." To the treatment of these topics the author devotes approximately one-fifth of his space. Following this description of prehistoric times, Mr. Wells takes up the ancient world. This part of the book contains, first, the history of the early peoples of Mesopotamia and the Nile, including chapters on "Primitive Nomadic Peoples," "The First Sea-going Peoples," and "The Primitive Aryans"; second, the story of the Greeks, with chapters on "The Splendour of Greece" and "The Museum and Library at Alexandria"; third, the history of the rise and fall of the Roman Empire, including the development of Christianity; and, fourth, sketches of China, India, Persia, and Arabia. After this rather generous treatment of ancient history, Mr. Wells hastens over the thousand years between the crowning of Charlemagne and the French Revolution in a somewhat breathless fashion, including in his survey brief descriptions of the Crusades, the Great Schism, the Renaissance, the Reformation, the expansion of Europe, and the American Revolution. In the history of the last century, he includes as his chief topics the development of material knowledge and of political and social thought, the expansion of the United States, the development of the British Empire, the rise of Japan, the world-war, and the political and social reconstruction of the world. As a recapitulation, it may be said that Mr. Wells devotes to prehistoric and ancient times approximately 60 per cent of his space (this discussion is by all odds the best portion of the volume); to medieval times, 10 per cent; and to modern times, 30 per cent. Many will consider this distribution injudicious, holding that the last two periods deserve a larger share of the available space.

Throughout the volume the author places chief emphasis on the development of civilization, as he understands it, and on the life of the common man. Notable among his chapters on the latter phase of the subject are those devoted to "Primitive Thought," "The Primitive Aryans," and "The Common Man's Life under the Early Roman Empire." As one of the factors which have profoundly influenced the development of civilization, he rightly stresses religion, and, considering the size of the volume, his treatment of religious beliefs and leaders is exceptionally complete; entire chapters or large portions of chapters are given to the life and teachings of Buddha, Confucius, Tao Tse, Jesus, and Mohammed, practically nothing being said of Zoroaster. Mr. Wells' viewpoint, as well as his style, is shown in this comment on the revolutionizing tendencies of the teachings of Jesus and their effect on the people of the time:

In view of what He plainly said, is it any wonder that all who were rich and prosperous felt a horror of strange things, a swimming of their world at His teaching? He was dragging out all the little private reservations they had made from social service

into the light of a universal religious life. He was like some terrible moral huntsman digging mankind out of the snug burrows in which they had lived hitherto. In the white blaze of this kingdom of His there was to be no property, no privilege, no pride and precedence; no motive indeed and no reward but love. Is it any wonder that men were dazzled and blinded and cried out against Him? Even His disciples cried out when He would not spare them the light. Is it any wonder that the priests realized that between this man and themselves there was no choice but that He or priestcraft should perish? Is it any wonder that the Roman soldiers, confronted and amazed by something soaring over their comprehension and threatening all their disciplines, should take refuge in wild laughter, and crown Him with thorns and robe Him in purple and make a mock Caesar of Him? For to take Him seriously was to enter upon a strange and alarming life, to abandon habits, to control instincts and impulses, to essay an incredible happiness [pp. 220-221].

The volume, as might be expected, abounds in judgments, conclusions, and generalizations, many of which historians will question or deny. The following will serve as illustrations: "the Roman Empire was a very primitive organization" (p. 237); Julius Caesar was a man who "has stirred the human imagination out of all proportion to his merit or true significance" (p. 192); the harshness of slavery in Rome was mitigated as a result of the influence of "the higher mentality of Greece" (p. 207); one of the sources of power and inspiration of Islam is "its freedom from theological complications" (p. 251)—a statement contradicted two pages later; the early Greeks were "a breed of pirates" (p. 92); the Hebrew Bible first "appears in history in the fourth or fifth century B.C." (p. 115); the efforts in the Treaty of Versailles "to reconstitute international relations by the establishment of a League of Nations against war were manifestly insincere and inadequate" (p. 422); the League of Nations was an attempt "to create a distinctively American world project . . . a sketchy, inadequate, and dangerous scheme" (p. 423).

The volume contains over two hundred illustrations and maps, many of which occupy full pages. Most of these possess real merit, but some merely embellish rather than illustrate the text, and others are misplaced. The paper and binding are of fair quality. The type is readable; the printing is rather poorly done; the proofreading is a bit careless. But in spite of shortcomings in proportion, viewpoint, matters of detail, and typography, the book is an interesting production. While not serviceable as a text, on account of ill proportions and prohibitive price, it will prove valuable for supplementary reading. To the general reader it will furnish, as the author claims, "an account of our present knowledge of history shorn of elaborations and complications," even though the view be somewhat distorted and misleading. From it he "should be able to get that general view of history which is so necessary a framework for the study of a particular period or the history of a particular country" (p. v).

HOWARD C. HILL

Modern essays.—"No profit grows where is no pleasure ta'en." This keynote of modern teaching of literature is sounded vigorously and entertainingly for the usually dull field of essays in a new book¹ which ought to be in the hands of every junior or senior high school class. Essays by Lafcadio Hearne about modern Japan, by Simeon Strunski about athletics, by Dorothy Canfield Fisher about a village in the war zone, and by Truman J. Spencer about the staging of Shakespeare are samples of the fifteen modern, vital, interesting, and artistic personal writings collected and edited in this textbook, which ought to precede, and probably supersede, Burke's "Conciliation Speech" and Macaulay's "Johnson" if we want students to enjoy reading.

R. L. LYMAN

Improvement of teaching through supervision.—A casual glance at pedagogical literature will show that we are much in need of books dealing with concrete discussions of the problems and procedures of the supervisor. With the exception of periodical literature, there are very few books telling the school principal and the supervisor how to study their problems and improve their technique. One of the most significant attempts to improve the present situation is the valuable work² done by W. H. Burton in bringing together much of the scattered material from various sources and in organizing it into a definite plan of supervision and guidance.

The book is divided into four parts, comprising eighteen chapters and an appendix of fifty-eight pages of lesson plans of varied types. The chapters which discuss the more commonly recognized functions of the supervisor are found in Parts III and IV. In them we find the following chapter headings: "The Selection of Subject-Matter," "The Use of Tests and Measurements in Adjusting Instruction to Individual Differences," "The Improvement of Teachers in Service," "The Rating of Teachers," "The Training and Personality of Supervisors," "The Visitation and Conference with the Teacher," and "The Rating of Supervisors."

The last chapter contains an outline discussion of supervisory efficiency and also score-cards for rating the efficiency of supervisors. These forms may be used by the supervisor as a self-checking device for self-improvement, by the superintendent in checking results, or by teachers in expressing their judgment with regard to supervisors, thus justifying the position that effective supervision should be a truly co-operative procedure.

One of the principal purposes of the book as stated in the Preface is "to try to bring teachers and supervisors more into accord and to break down, if possible, the antagonism that is quite marked in many situations" (p. viii).

¹ EDWIN VAN B. KNICKERBOCKER, *Present-Day Essays*. New York: Henry Holt & Co., 1923. Pp. xxviii+348. \$1.24.

² WILLIAM H. BURTON, *Supervision and the Improvement of Teaching*. New York: D. Appleton & Co., 1922. Pp. xx+510.

Accordingly, the teachers' method, problems, and viewpoint are given considerable space and attention. Part II considers "The Supervisor and the Improvement of Teaching" under the headings, "School Management," "General Principles Affecting the Learning Process," "Lessons Involving Reflective Thought," "Imitation," "Drill," "Assignment of Lessons," "Supervision of Study," "The Project Method," and "Variations of Method Principles." Strictly speaking, the treatment of teaching method does not come within the scope of a text in supervision. But Mr. Burton justifies this inclusion on the following grounds:

It is undoubtedly true that the supervisors who are thoroughly expert in modern teaching method are in the minority. Hence this body of material should be valuable to a large number of untrained and partly trained supervisors. . . . My point of view is summarized in the report of one reviewer: "This book is written for supervisors as they are, not as they should be" [p. viii].

As a whole, the book represents an excellent treatment of teaching problems which should lead to improvement in professional spirit and efficiency. The discussion throughout is simple, clear, and replete with many practical examples and apt illustrations from the author's experience. It contains many well-selected quotations and particularly helpful bibliographies annotated with discriminating notes. The book is one of the most significant contributions to the field of supervision.

F. L. SCHWASS

Mathematics for shop courses.—It has been claimed by some educators that pupils preparing for vocations do not have the time to study the mathematics usually offered in high schools and that they do not need the training derived from that study. Furthermore, it has been said that intensive training in mathematics should be left to the particular group which the pupil has entered and that the amount of mathematics taught should be determined by the needs of each vocational group. It is the opinion of the authors of *Machine Shop Mathematics*¹ and of *Fundamentals of Practical Mathematics* that they have succeeded in finding a type of work from the study of which "certain classes in high schools will receive greater benefit than from the abstract mathematics commonly offered." *Machine Shop Mathematics* is prepared to meet the mathematical needs of students who expect to become machinists. It is to be studied after the student has covered the work laid down in the authors' *Fundamentals of Practical Mathematics*.

Throughout the course emphasis is placed mainly on attaining knowledge of the instruments actually used by machinists rather than on the mathematics. Tools and machines are illustrated freely by means of drawings, blue-prints, and photographic reproductions. The topics studied are measuring instruments, speeds and feeds, tapers and taper turning, screw threads, indexing and

¹ GEORGE WENTWORTH, DAVID EUGENE SMITH, and HERBERT DRURY HARPER, *Machine Shop Mathematics*. Boston: Ginn & Co., 1922. Pp. iv+162.

spiral cutting, and gears. Innumerable problems relate to machine work, and with each type of problem are given formulas needed in the solution. This collection of problems and formulas should be valuable to teachers of courses in machine shop.

In dealing with the mathematics, the procedure of the book is as follows: The diagram is explained first. The student is then told the formulas which are to be used in solving the problem. Finally, in a number of cases an illustrative example is worked in full to show how the formulas are to be manipulated. No explanations are offered as to how the formulas are derived. The operations used in evaluating the formulas are not rationalized, thereby reducing the mathematics to a juggling of symbols without any reference to or knowledge of the principles or laws involved. It cannot be expected that this type of work will help the student to attain mathematical power and understanding of algebra. The authors have given a good description of machine-shop tools and instruments but have not developed a course in mathematics growing out of a real situation, such as is offered in the machine shop, from which the student could derive the educational values that can be attained from the study of the courses usually offered by the department of mathematics.

E. R. BRESLICH

One-year course in world-history.—There has been a decided change in the treatment of history within the past twenty years. Historians have ceased to give epitomes of events or to treat them in a purely chronological manner. The purpose has more and more been to give larger accounts of those circumstances which brought forth the civilization which we enjoy. In a recent book¹ Mr. West has given a survey of civilization from the earliest man to the present day. The entire book has been arranged in topics, and these have been treated in such a way that the story of man's progress is clearly set forth. The author states that his "aim has been to select topics that make the past live again and that at the same time form a continuous story and prepare best for an understanding of the social problems of today" (p. iii).

The book is divided into sixteen parts or topics. The first is "The World before the Greeks." This emphasizes the progress of man in his conquest over nature and in his various relationships. The story of civilization passes then to the Greeks. Their culture and learning are emphasized. The third topic portrays a Graeco-Oriental world. And so the story continues down to 1922. During the medieval period, movements rather than national histories are related. However, in the modern age, England is given a conspicuous place on account of the great contributions of that country to the world and especially to the United States. An account of our own country is omitted except as it plays a part in European or world events.

¹ WILLIS MASON WEST, *The Story of World Progress*. Boston: Allyn & Bacon, 1922. Pp. xx+670+48.

The book is well bound, well written, and illustrated with 296 pictures, some of which are in color. It abounds in maps, there being fifty-six in all. A good appendix and a self-pronouncing index add to its usefulness. It is written for first- or second-year high-school students who have only one year for European history. The story is told in 670 pages, of which about half are devoted to the period before 1520 and half to the period since that date. Some teachers might prefer more emphasis on the later centuries. Viewed as a whole, the book is interesting and complete, and it fulfils its aim in an adequate manner.

HEBER P. WALKER

Junior high school English.—A definite program of lessons designed to teach "sentence sense" is the outstanding feature of a new textbook in English for the seventh and eighth grades.¹ The authors "believe that there is nothing mysterious about this knowledge, nor about the form of exercise that will convey it." Their belief determines, to a large extent, the selection, arrangement, and emphasis of the grammar taught. The specific exercises used to develop "sentence sense" are almost exclusively of one type, namely, passages which pupils are to separate into sentences and rewrite. They are well chosen to apply and reinforce the facts taught. Stimulating suggestions guide pupils to the thoughtful solution of special difficulties. The plan seems promising except for its monotony.

Material for oral and written composition, lessons in punctuation, and spelling lessons are all included in the text. The spelling is particularly well treated, not by means of lists, but through discussion and comparison of selected words, which are presented separately and then woven into memory sentences designed to fix the words in the pupils' minds. Always there is the reminder that habitual use is the measure of mastery.

Unfortunately, the authors have followed the common practice of assorting the material in lesson units. The result is a superficial confusion which makes it difficult to discern the unity and progressiveness of the plan. Notwithstanding this fault, the book has many desirable features which will make it of value to teachers of junior high school pupils.

EDITH E. SHEPHERD

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

BROWN, ARLO AYRES. *A History of Religious Education*. New York: Abingdon Press, 1923. Pp. 282. \$1.25.

CHARTERS, W. W. *Curriculum Construction*. New York: Macmillan Co., 1923. Pp. xii+352.

¹ C. H. WARD and H. Y. MOFFETT, *The Junior Highway to English*. Chicago: Scott, Foresman & Co., 1922. Pp. 332.

- DEARBORN, WALTER F., LINCOLN, EDWARD A., and SHAW, EDWIN A. *Standard Educational Tests in the Elementary Training Schools of Missouri*. Harvard Monographs in Education, Whole No. 3. Cambridge, Massachusetts: Graduate School of Education, Harvard University, 1922. Pp. viii+90. \$0.60.
- GEYER, DENTON L. *Introduction to the Use of Standardized Tests*. Chicago: Plymouth Press, 1922. Pp. 96. \$0.50.
- HETHERINGTON, CLARK W. *School Program in Physical Education*. Yonkers-on-Hudson, New York: World Book Co., 1922. Pp. xii+132. \$1.00.
- HOKE, ELMER RHODES. *The Measurement of Achievement in Shorthand*. Johns Hopkins University Studies in Education, No. 6. Baltimore, Maryland: Johns Hopkins Press, 1922. Pp. 118. \$1.50.
- HOKE, ROY EDWARD. *The Improvement of Speed and Accuracy in Typewriting*. Johns Hopkins University Studies in Education, No. 7. Baltimore, Maryland: Johns Hopkins Press, 1922. Pp. 42. \$0.75.
- Maryland *High School Standards*. Maryland School Bulletin, Vol. IV, No. 2. Baltimore, Maryland: State Department of Education, 1923. Pp. 266.
- NEALE, M. G., and SEVERSON, S. B. *A School Building Program for the City of Duluth, Minnesota*. Duluth, Minnesota: Board of Education, 1922. Pp. 94.
- ODELL, CHARLES W. *The Use of Intelligence Tests as a Basis of School Organization and Instruction*. Bureau of Educational Research Bulletin No. 12, University of Illinois Bulletin, Vol. XX, No. 17. Urbana, Illinois: University of Illinois, 1922. Pp. 78. \$0.50.
- Ohio *High School Standards* (Junior and Senior). Prepared by Walton B. Bliss. Columbus, Ohio: Department of Education, 1923 [revised]. Pp. 176.
- Proceedings of the High School Conference of November 23, 24, and 25, 1922*. University of Illinois Bulletin, Vol. XX, No. 29. Urbana, Illinois: University of Illinois, 1923. Pp. 400.
- UHL, WILLIS L. *A Syllabus in the Technique of Teaching in High Schools*. Madison, Wisconsin: Willis L. Uhl, University of Wisconsin, 1923. Pp. 126.
- UPDEGRAFF, HARLAN, and KING, LEROY A. *A Survey of the Fiscal Policies of the State of Pennsylvania in the Field of Education*. Harrisburg, Pennsylvania: State Department of Public Instruction, 1922. Pp. viii+208.
- Vocational Guidance Bulletin*. Pittsburgh, Pennsylvania: Board of Public Education, 1922. Pp. xiv+160. \$0.60.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

- Cupid and Psyche* (partly in the original and partly in translation). Edited by H. E. BUTLER. New York: Oxford University Press, American Branch, 1922. Pp. 128. \$1.20.
- FORD, WALTER BURTON, and AMMERMAN, CHARLES. *Plane and Solid Geometry*. New York: Macmillan Co., 1923 [revised]. Pp. x+356+xxviii.

- LOVE, CLYDE E. *Analytic Geometry*. New York: Macmillan Co., 1923. Pp. xiv+306.
- MC SPADDEN, J. WALKER. *Shakesperian Synopses*. New York: Thomas Y. Crowell Co., 1923 [revised]. Pp. xvi+322. \$1.50.
- MOREHOUSE, FRANCES, and GRAHAM, SYBIL FLEMING. *American Problems*. Boston: Ginn & Co., 1923. Pp. xii+568+xxx.
- PARGMENT, M. S. *Exercices Français, Cours Préparatoire*. New York: Macmillan Co., 1923. Pp. viii+320.
- PLUM, HARRY GRANT, and BENJAMIN, GILBERT GIDDINGS, in collaboration with PIERCE, BESSIE L. *Modern and Contemporary European Civilization*. Philadelphia: J. B. Lippincott Co., 1923. Pp. 414. \$2.20.
- SMITH, C. ALPHONSO. *Essays on Current Themes*. Boston: Ginn & Co., 1923. Pp. vi+468.
- TAYLOR, ALBERT LEROY, and BLAKE, A. HAROLD. *Automotive Manual for Laboratory and Repair Shop*. New York: Macmillan Co., 1923. Pp. viii+178.

PUBLICATIONS OF THE UNITED STATES BUREAU OF EDUCATION
AND OTHER MATERIAL IN PAMPHLET FORM

Popular Books in Science: A Reading List. Chicago: American Library Association, 1923. Pp. 20. \$0.20.

Recent issues of the Bureau of Education:

- Bulletin No. 6, 1922—*State Policies in Public School Finance*.
- Bulletin No. 23, 1922—*High-School Buildings and Grounds*.
- Bulletin No. 29, 1922—*Statistics of State School Systems, 1919-20*.
- Bulletin No. 30, 1922—*Accredited Higher Institutions*.
- Bulletin No. 35, 1922—*First National Conference on the Work-Study-Play or Platoon Plan*.
- Bulletin No. 36, 1922—*Educational Boards and Foundations, 1920-22*.

MISCELLANEOUS PUBLICATIONS

- The Honesty Book*. New York: National Honesty Bureau, 1923. Pp. 56.
- MILLER, ELIZABETH ERWIN. *Dramatization in the Church School*. Chicago: University of Chicago Press, 1923. Pp. xiv+90. \$1.25.
- POWELL, WARREN T. *Recreational Leadership for Church and Community*. New York: Methodist Book Concern, 1923. Pp. 164. \$0.80.

